ST. BARTHOLOMEW'S HOSPITAL JOURNAL

VOL LXI JULY 1957 No 7

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Editor: J. K. CHONG
Sports Editor: R. J. MITCHELL
Manager: C. J. CARR
Assistant Manager: M. I. D. CAWLEY
Women's Representative: Miss J. CHAMBERS
Charterhouse Representative: Miss A. M. MACDONALD

July 1957

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LXI **JULY 1957** **No. 7**

EDITORIAL

ALTOGETHER TOO OFTEN, medical students have been stereotyped as hard-drinking, hyper-virile individuals given to subliming their libido by indulging in such hazardous pastimes as bone-cracking rugger games or driving with careless abandon in sports cars and 'souped-up' contraptions. Such peculiarities of behaviour should endear them to Society Matrons casting their ever watchful eyes for likely 'catches' at the beginning of each Season but, alas, how many of our brood do manage to rub noses with the smart young set and reach the dizzy heights of appearing in the Tatler? The few who do so may be considered as already 'made.' The less fortunately fated majority owe their inadequacies to talking shop in the presence of lay company. Paucity of other interests and hobbies, whether due to an impecunious state or inherent diffidence are said to be some of the causes for this regrettable deficiency. It is our contention that material and interest lack are not altogether to blame. The demands of a rigorous course of training upon the future doctor leave him little leisure time in which to trifle with matters U or non-U.

Sad it is to observe that from the very beginning, impediments lie in the rugged path of the unwary individual who has become desirous of embarking upon a medical career. The 11-plus examinations with their ludicrous questions which even adults have been known to find impossibly unanswerable, are among the first hurdles to be overcome. Assuming that our stalwart would-be doctor has managed to foil his diabolical examiners, he goes on and negotiates the G.C.E. successfully. Then on to the serious business of learning the art of healing. One can commiserate with the hapless creature when woe betide him, the rude awakening is his that the xylem and phloem (to rhyme with 'high' for upward conduction and 'below' for downward) of dicotyledonous plants is still not quite medicine! Should not greater emphasis at this early stage of instruction be laid on Mycology and Virology in this age of antibiotics and virus diseases?

Doubly sad it is, too, that in the clinical stage of training, the myriads of facts of medical interest have to be drummed into his head or forced down his throat by a 'System of Numerals.' "There were eighteen causes for bleeding gums when I did my finals; I don't know how many I can remember now," is but a single illustration of the inadequacy of the numeral system. Besides being inadequate, immeasurable harm could be done to the self-confidence of those brought up on clicking-counters should they manage to think of only thirteen causes for bleeding gums. One has heard it claimed that 108 causes existed for diffuse mottling in X-rays of lungs. The sensible should counter with indefatigable calm that there were 109 causes and remain quite firm at that.

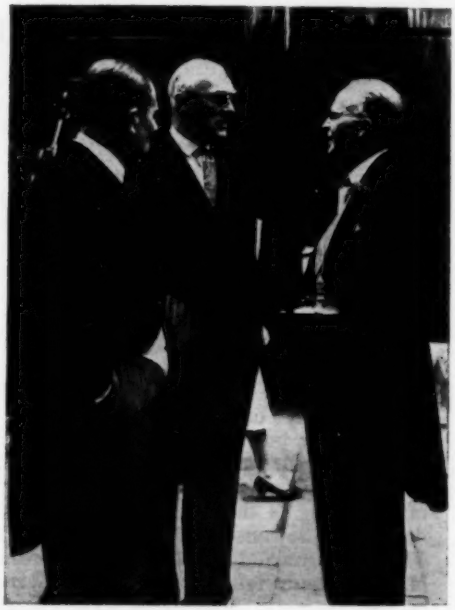
That rare phenomenon, the individual with an encyclopaedic knowledge of almost any subject which he chooses to study, owes this enviable faculty to what is commonly known as a 'photographic memory.' For him, the numeral system of instruction is indispensable. Examiners, however, often seek in candidates for the ability to reason from basic principles. The decadent 'leisurely' system as used without change in our ancient universities involves the none-too-leisurely practice of looking up facts for oneself for the weekly essay which is discussed with one's tutor. This system of individual guidance promotes not only a sense of intellectual curiosity, but also a faculty for intelligent controversy and reasoning. Blind

acceptance of 'facts' is discouraged and pedantry is avoided. Would not time spent in compulsory lectures be spent more beneficially by students in smaller and less formal discussion groups during which they might be encouraged to put forward their views, having come prepared? Critics may denounce this as involving egotism, but even if it should comprise egotism in the strictest psychological parlance, is it too high a price to pay for the final produet—a more assured and critical doctor who is unafraid of taking the step into research work? Perhaps by then the various disorders which are at best still labelled in pure defeatism 'Idiopathic' will read in textbooks: 'Malady X, Aetiology, one . . . two . . . three . . .' and this was just where we came in.

View Day

The Square, a few days before View Day, was the scene of beehive-like activity. Operation 'Face-lift' soon got into full swing. Workmen were busy scraping off whatever it was that covered the tin roofs of the four shelters ('at least half a pail from each') and painting them over with an attractive green paint. The woodwork, too, received attention. Horticulturists soon arrived with their geranium plants, which they promptly stuck into the patches of soil traditionally reserved for them at the bases of the trunks of the trees. The pigeons seemed to realise the import and solemnity of the forthcoming occasion. They behaved themselves exceedingly well. On View Day itself, the Square, that central focus or arena in which one sees or is seen, looked appropriately clean.

Practice-swing for the Staff Match?



. . . . a dressier affair . . . .

For the second consecutive year, View Day was cloudy. It was cold and it threatened to rain. Almost unnoticed, the Head Porter led the procession of the Treasurer, Clerks to the Governors, Matron, Steward and Governors, starting from the Steward's Office at 2 o'clock. The usual itinerary was followed — Surgery, Dispensary, East Wing and, finally, the King George V Block.

Morning coats were much in evidence this year. Topics of conversation might well have been sartorial. Probably only the most boorish of critics from *Tailor and Cutter* could have found fault with some of the

boutonnieres sported with rakish daring on some of the lapels of the learned. Although it was a dressier affair this year, hands in pockets seemed to be the stance of common choice. It was a cold afternoon.

Celebration

After their Annual General Meeting, the members of the Rugger Club were entertained in the Abernethian Room at the Hospital in recognition of the feats of the 1st XV in the Hospitals Cup competition. The hosts were the President and Vice-Presidents of the Club, who very kindly donated celebratory champagne, and the Medical College council who provided the accompanying refreshments. During the course of the evening, the gathering was persuaded to leave the champagne temporarily in order to see a cinematographic record of all the Cup games taken by an ardent supporter of the Club. Festivities were then resumed. Such an enjoyable end to the season must surely provide incentive for an even more successful season next year.

Full House

An audience packing the Clinical Lecture Theatre to the rafters attended the Lecture Demonstration given by Mr. J. Howkins on 'Contraceptives.' Such an unique undertaking in the hallowed atmosphere of Bart's must have provoked considerable controversy, but both advocates and opponents of the practice attended the lecture in their various strengths for their own good reasons. Could this be an epoch-making experience for Bart's students? Many felt that such a vitally important subject could remain excluded from the syllabus no longer, as expert opinion and instruction which were to be had would be far more accurate and superior to common hearsay or sketchy knowledge obtained from cursory references to the vast and often inaccurate literature available.

A short film on one of the methods held most in favour was shown. The announcement that those desirous of being 'fitted' could easily be accommodated in complete secrecy was not to be taken lightly, as evinced by the rapidity with which 'professional literature wallets' with their contents in pseudo-scientific language were snapped up. During a question-and-answer period, a certain member of the audience nearly succeeded in getting a free passage over to New Jersey to inspect the elaborate pharmaceutical refinements and facilities at the 'parent' factory.

Landlubbers on the Crouch

A barely nautical correspondent writes:

The Bart's Regatta is a time when the Salts of Burnham shudder and there are averted eyes on the balcony of the Royal Corinthian Yacht Club. The keen beginner who has studied the technical jargon finds himself misunderstood and has reluctantly to revert to homely and unglamorous terms; he finds himself manning, not alas! the furrard thwarts, but the plain old seat at the front. And in the 'regulars' there is detectable that strained look which one sees in the teacher of golf.

But for us tyros it was a delightfully interesting and convivial experience. Surprisingly in view of the small number of boats there was plenty of sailing for everybody, and the row of delightful hostelries along the quay made a pleasant setting for the 'après-sail.' Even the bunks — horrible to view on arrival — turned out to be reasonably accommodating to one's dents and bumps.

One would like to make only one small criticism of the Burnham set-up. The boats (or should I say craft?) are anchored some little way from the shore, and one fragile little dinghy is available for ferrying the multitude out to them. The result is that the races tend to be won at the anchorage by the crews who seize the dinghy first. Even more agonising is the situation after the race, when one sits forlornly in one's anchored craft, watching (almost) the party gathering at the Anchor and smelling the delightful concoctions of Barbara Barnard cooking in the clubhouse.

Otherwise the Regatta was a great success and thanks are due to the most able skipper, Robin Ridsdill-Smith, who organised it. Results of the races appear on a later page.

View Day Ball

When people are away from home they tend to behave either too badly or too well. Perhaps that is one of the delights of leaving home. And while one can't really compare a ball at the Park Lane to tea with the

Duchess or to shore leave in Cairo, it does have sufficient tang of foreign soil to lead one to expect and do the unexpected. Even the most unimpressionable feel at least a a greater inclination to be photographed.

Dancing seems to have become more energetic in recent years. (We hope it is that, but perhaps we are just getting old.) Rocking plus the Charleston make a formidable sporting event. And then, of course, there are the strange arrhythmias of the piper, whom the reluctant Sassenach has to excuse because there is never any doubt that he is trying. And why is it that the Gay Gordons and Eightsome Reel rather than other and better Scottish dances have edged their way into the *lingua franca* of the dance floor?

The cabaret was an enjoyable respite from these exercises. Donald O'Sullivan, Elizabeth Rowswell and John Bench sang combined and individual songs with great *élan*. Miss Rowswell's mobile expression made up for any lack of voice power, rivalling Mr. Bench in a thing at which he excels. Donald O'Sullivan gave a bloodthirsty rendering of one of Tom Lehrer's more blood-curdling songs. It is a pity that there is not a more fluid source of talent for this sort of cabaret; that the ability is there is well shown by the pot-pourri ; but in the hot summer months it becomes rusty, and drab faces in front of the *tele* are reluctant to appear as gay faces before an audience. But the *Journal* tends to become a bore on this subject.

Those who went on after the ball to the Middlesex Hospital's dance at the Festival Hall agreed that it had something the Park Lane lacked. But we do not advocate a return to these old sporting grounds. There is, however, a possibility worth considering. Several people have suggested a ball on Oxford and Cambridge lines to be held on the lawn of College Hall, for which it might be possible to hire the hall of Charterhouse buildings, a most delightful room and eminently suitable for a buffet supper. It would require a lot of organisation and the financial risk would be greater, but at least the Hospital would be more or less 'At Home.'

New Treasurer

Sir Herbert B. Cohen, Bart., O.B.E., has resigned as Treasurer of the Medical College and Rear-Adwiral P. K. Kekewich has been elected in his place.

English Without Tears

From 'Bart's worst student' the *Journal* has received a pamphlet which was handed to him recently in Paris. In bold type on the cover were 'Les enfants Royaux d'Angleterre ont ete vaccines contre la Poliomyelite.' On the back cover the translation was printed : '*The Royal children had been vaccinated from the poliomyelite.*' It went on, '*In England, since several years, an efficient strife is engaged from the poliomyelite. From the statistics of* 1956, *more than two thousand children of every age had been partialy vaccinated. In England, the Britannic vaccine that one is perceptibly different that the doctor Salk's vaccine improved by the Americans. On the front of the accomplished fond, we believe that the English vaccine from the poliomyelite is permanently in the nick of time.*'

New Dean

Mr. D. F. Ellison Nash has been appointed Dean of the Medical College as from 1st October, 1957.

MEDICAL STAFF

CHILDREN'S DEPT. (S.H.O.) ..... Miss P. Mansfield
(succeeds Mr. Popper)
DENTAL DEPT. (House Officer) ..... B. Scheer
(succeeds Cooksey)
Senior Registrar—Mr. Marsden becomes part-time from 10.6.57.
DIAGNOSTIC X-RAY DEPT.
Registrar ..... Miss M. E. Sidaway
EYE DEPT.
Registrar ..... R. F. Jones
S.T.C.
General Practitioner Assistant
Mr. R. E. Dreaper
Mr. Corbett's firm
Registrar ..... Mr. P. Paton Philip
(succeeds Mr. Walker-Brash)
Dr. Cullinan's firm
Junior Registrar ..... Dr. D. M. Shaw
(succeeds Dr. J. R. Morrell)
Mr. Naunton Morgan's firm
Junior Registrar ..... Mr. N. J. Blacklock
(succeeds Mr. G. A. D. Lavy)

Journal Staff

Mr. J. S. Price has resigned from the post of Editor. The Assistant Editor, Mr. J. K. Chong, has been elected Editor in his place.

Congratulations

to Miss K. M. Halpin, C.B.E., and Dr. E. F. Scowen on their election as members of the College Council;

to Mr. D. F. J. Mason on his appointment as Lecturer in Pharmacology.

Royal College of Physicians

Fellows.—Drs. Oswald Savage, E. C. O. Jewesbury, G. W. Boden.

Royal College of Surgeons of England

Mr. A. H. Hunt has been awarded the Jacksonian Prize for 1956.

Cambridge University

M.Chir.—R. B. McGrigor.

Glasgow University

The honorary degree of Doctor of Laws was conferred on Sir James Paterson Ross on Commemoration Day, June 19.

University of London

M.S.—W. J. Atkinson.

M.D.—E. A. Boyse.

Ph.D.—E. S. Perkins (Faculty of Medicine).

Ph.D.—H. V. Wyatt (Faculty of Science).

Dr. C. F. Harris has been re-appointed Deputy Vice-Chancellor for 1957-58. He has also been nominated for appointment or re-appointment on the governing bodies of the Royal College of Veterinary Surgeons, and the Slough Industrial Health Service Ltd. Council of Management.

University of Sheffield

Dr. R. E. Church has been appointed clinical teacher in dermatology.

American Gastroenterological Association

Mr. Hermon Taylor is to visit the United States this month to speak at the annual meeting of the American Gastroenterological Association in Denver, Colorado. He will also address the American Gastroscopic Society, who have given him the Schindler Award.

Bentley Prize

The Bentley Prize for 1957 for reports of cases from the Medical wards of the Hospital has been awarded to R. C. Cook.

Change of Address

Dr. William L. Timmins — to Roswen, 22, Western Terrace, Falmouth, Cornwall.

Dr. J. R. Brown — to 57, Draycott Avenue, Kenton, Harrow, Middlesex.

Dr. Roy S. Anderson to 14, Ravensgate Road, Charlton Kings, Cheltenham.

Dr. G. Melotte, to 33, Queen's Way, Hanworth, Middlesex.

ANNOUNCEMENTS

Marriages

BRADBURY—KIRBY. — On June 1, 1957, Michael W. B. Bradbury to Anne Kirby.

ELLIOTT—HAYWARD.—On March 30, 1957, Charles Gavin Elliott to Elizabeth Ann Hayward.

ELLISON—BATES. — On March 30, 1957, Anthony John Hubert Ellison to Margaret Heather Bates.

ESDALE—LINDOP.—On May 6, 1957, Mr. G. P. R. Esdale to Dr. Patricia J. Lindop.

Births

ATKINSON.—On April 18, 1957, to Veronica, wife of R. S. Atkinson, a son.

CHAMP.—On May 15, 1957, to Doris and Charles Champ, a son, Roderick Charles.

CUTHBERT.—On May 3, 1957, to Melodie and Olaf Cuthbert, a daughter, Rebecca Rose.

MASKELL.—On May 14, 1957, to Rosalind, wife of John Maskell, a daughter, Genevieve Mary.

METHA.—On May 27, 1957, to Joy and Mark Mehta, a son, James.

MURRELL.—On May 17, 1957, to Janet and John Murrell, a daughter.

PARKER.—On April 8, 1957, to Pamela, wife of Robert Parker, a daughter, sister to Richard.

ROBERTSON.—On March 29, 1957, to Alison, wife of Douglas Robertson, a daughter.

SMITH.—On April 6, 1957, to Phillida, wife of Roderick Smith, a son, Richard Anthony.

Deaths

AUDEN.—On May 3, 1957, George Augustus Auden, aged 84. Qualified 1897.

DALE.—In March, 1957, in Saskatchewan, Robert Henry Dale, aged 47. Qualified 1935.

DALLIWALL.—On May 6, 1957, Roy Enyat Singh Dalliwall, aged 53. Qualified 1930.

FISON.—On April 20, 1957, James Fison. Qualified 1905.

LAMPLOUGH.—On April 7, 1957, Charles Lamplough, aged 84. Qualified 1895.

MINSHULL.—On April 17, 1957, Michael John Wilmott Minshull, aged 57. Qualified 1925.

MYERS.—On May 9, 1957, Bernard E. Myers, aged 85. Qualified 1898.

PRATT.—On April 24, 1957, Eldon Pratt, aged 87. Qualified 1896.

RANDOLPH.—On May 1, 1957, William Henry Randolph. Qualified 1899.

YETTS.—On May 14, 1957, Walter Perceval Yetts. Qualified 1903. (Professor Emeritus of Chinese Art and Archaeology in the University of London.)

GILLIES.—On May 14, 1957, Kathleen Margaret, devoted wife of Sir Harold Delf Gillies, Kt., mother of John, Margaret, Joanna and Michael, peacefully after a long illness.

CALENDAR

Sat.	July	6	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Anaesthetist: Mr. C. E. Langton Hewer. Cricket: v. U.C.S. Old Boys (H). Tennis: v. West Heath (H).
Sun.	,,	7	Cricket: Past v. Present (H).
Sat.	,,	13	Medical and Surgical Professorial Units on duty. Anaesthetist: Mr. G. H. Ellis. Cricket: v. Incogniti (H). Tennis: v. Roehampton (H).
Sun.	,,	14	Cricket: v. Hampstead (H).
Wed.	,,	17	Golf: v. K.C.H. (H).
Sat.	,,	20	Dr. G. Bourne and Mr. J. B. Hume on duty. Anaesthetist: Mr. F. T. Evans. Tennis: v. Middlesex Hospital (A).
Wed.	,,	24	Golf: v. St. Mary's at Moor Park.
Sat.	,,	27	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Anaesthetist: Mr. R. A. Bowen. Tennis: v. U.C.H. (H).
Sun.	,,	28	Cricket: v. R.N.V.R. (H).
Wed.	,,	31	Golf: v. London Hospital (H).
Sat.	Aug.	4	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Anaesthetist: Mr. R. W. Ballantine. Cricket: Sussex Tour.
Wed.	,,	7	Golf: v. St. George's Hospital (Dulwich).

LETTERS TO THE EDITOR

BERNARD HUDSON

Sir,—Bernard Hudson, whose death you report in the May number, was at one time in charge of the Palace Hotel Sanatorium, at Montana-sur-Sierre, where many officers were treated after the First War.

He had a genial personality with a sense of humour, which helped him to deal with patients who were often impatient and sometimes unreasonable. I believe that his career at St. Bartholomew's was cut short by the occurrence of Pulmonary Tuberculosis, but he became the apostle of physical fitness and wore only a cotton shirt under his jacket when out of doors in the coldest weather.

Yours sincerely,
JOHN WHITTINGDALE, F.R.C.S.

Newland, Sherborne.

A NAVAL EPIDEMIC

Sir,—I offer this further information in answer to Dr. Cronk's letter published in the April *Journal*. My patients had a smear made when they reported sick, and if their temperature rose above that on admission. The smears were thick at one end of the slide and thin at the other. Leishman's stain was used as it was the only one for staining blood films on board. I must agree that the laboratory side of the work was poor. My excuse must be that my equipment was limited, my reference books rather elderly and myself inexperienced.

Paludrine and Mepacrine were used because they with quinine, formed the stock of anti-malarials carried. Malaria in H.M. ships is almost unknown these days. Paludrine and Mepacrine are carried for prophylactic use in malarial ports.

Unfortunately it will be impossible to trace my patients in that epidemic, as I did not keep a list of their names and by now they are scattered throughout the Navy.

To add to the mystery, the R.A.M.C. malariologist and pathologist who surveyed the island in 1955 told me that the malaria-carrying mosquitoes that they caught on Pulau Tioman did not fly before 11 p.m. I thought that they were pulling my leg, but they denied this. They were unable to give me any cause for my outbreak. I met them in June 1956, when my article had already been sent to the editor.

Yours sincerely,
R. J. KNIGHT,
Surgeon Lieutenant R.N.

Royal Naval Hospital,
Haslar,
Gosport.

'AN ATTACK OF THE VAPOURS'

Sir,—On reading Miss Nina Coltart's article 'An Attack of the Vapours' in your March issue, I immediately recalled an incident which supported her view that a novel may in fact be of some assistance in preparing oneself for the finals.

When my turn came, I felt that the chance of success was remote and so resigning myself to a further six months, I read some novels one of which was Nevile Shute's 'Round the Bend.' One of the main characters in the book died from myeloid leukaemia. The condition was described in some detail for a novel and one feature was the deep pain which is sometimes experienced in the legs in the advanced stage of the disease.

On being asked to examine a patient's abdomen, I felt a large mass which I took to be a spleen. I asked the patient if he had noticed anything about his legs and he replied, "It's funny that you should ask that, as recently I have been getting a dull pain which feels to be in my bones".

The examiner appeared to be pleased with my handling of this case and I felt encouraged, but then there was the next patient who had a most obscure malady!

Yours sincerely,
D. H. BLACK.

King Edward VII Sanatorium,
Midhurst, Sussex.

WILLIAM HARVEY'S VIEWS ON BLOOD

Sir,—Sir Geoffrey Keynes in an article entitled "Harvey's Discovery that Blood Circulates" in *The Times* of June 3 tells us that 'he remained to some extent Aristotelian in his thought to the end of his life; though he rejected the doctrine that the *heart* was the seat of the soul, he still spoke of the *blood* as 'a generative part, the source of life, the first to live and the last to die, the primary seat of the soul'.

I must confess to complete ignorance of Aristotle, but may perhaps point out the resemblance of Harvey's statement to the basis of the Mosaic Law laid down in the Old Testament.

The book of Leviticus alone contains 48 statements of procedure in relation to the blood of animals. A classification of these might be attempted as follows:—

(1) The majority are repetitions of the rule for sprinkling of the blood of sacrificed mammals or birds 'round about upon the altar', or of other ritual: '. . . the priest shall dip his finger in some of the blood and sprinkle it seven times before the Lord, even before the vail. And he shall put some of the blood upon the horns of the altar that is before the Lord . . . and shall pour out all the blood at the bottom of the altar of the burnt offering . . .' (IV, 17, 18).

(2) The eating of blood is a crime: 'Moreover ye shall eat no manner of blood, whether it be of fowl or of beast, in any of your dwellings. Whatsoever soul it be that eateth any manner of blood, even that soul shall be cut off from his people' (VII, 26, 27).

(3) Yet the consecration of Aaron and of his sons required the application of the blood of a ram to the right ear, thumb and great toe (VIII, 23, 24).

(4) Leprosy was cured by application of a mixture containing the blood of a 'bird' (XIV, 6, 7).

The peculiar nature of blood is explained as follows:—

'And whatsoever man there be . . . that eateth any manner of blood; I will set my face against that soul that eateth blood, and will cut him off from among his people. For the life of the flesh is in the blood; and I have given it to you upon the altar to make an atonement for your souls: for it is the blood that maketh an atonement for the soul . . . For it is the life of all flesh; the blood of it is for the life thereof, therefore I said unto the children of Israel. Ye shall eat the blood of no manner of flesh: for the life of all flesh is the blood thereof: whosoever eateth it shall be cut off' (*Leviticus*, XVII, 10-14).

'Only be sure that thou eat not the blood; for the blood is the life; and thou mayest not eat the life with the flesh. Thou shalt not eat it: thou shalt pour it upon the earth as water' (*Deuteronomy*, XII, 23, 24).

There is a profound difference between the Jewish and Christian religions in their attitude towards blood although the latter religion was, at its origin, associated so closely with the former. This matter is referred to in a paper 'Some Biological Aspects of Jewish Ritual' (*Man*, Vol. 52, p. 65, 1957).

Yours sincerely,
E. L. KENNAWAY.

Dept. of Pathology,
St. Bartholomew's Hospital.

HARVEIAN ORATIONS

Sir,—The statement made by Mr. Thornton (p. 178) that up to 1866 apparently only two Bart's men had delivered the Harveian oration must be quickly contradicted. Orations by Pierce Dod (1729) and Richard Powell (1808) were both published; a copy of the latter is in the Hospital Library. It was not the custom for the Oration to be published in earlier days and I know of at least eight earlier Harveian orators who were on the staff of Bart's—Richard Tyson (1725), Anthony Askew (1758, 1762), Christopher Terne (1663, ms. in British Museum), Richard Budd (1781), David Pitcairn (1786), Edward Roberts (1801), James Howarth (1816) and Clement Hue (1829). These orations were not published. A study of Sir Norman Moore's History of our Hospital shows that our medical staff has always played its proper rôle in the affairs of the College for which Harvey did so much.

Yours sincerely,
A. W. FRANKLIN.

Lister House,
11, Wimpole Street,
W.1.

THE SCIENCE AND ART OF GENERAL PRACTICE

ON MAY 16TH, Dr. Allen Whitaker, of Guildford, lectured to final year students, taking this as his title. He began by saying that Medicine is a mixture of applied science and practical art, which varies in the different branches. The scientist in a teaching hospital tries, by using precision tools, to make exact measurements. He devises controlled experiments and strives to eliminate the human element in assessing his results. The differential diagnosis of a blood disease or of a chronic diarrhoea cannot be made without scientific tools. In general practice, however, the art of medicine is much more in evidence, and the knowledge of it must be acquired largely by experience. 'I know of no test that can measure whether a depressed patient is likely to commit suicide, or assess the aetiological significance of a mother-in-law in duodenal ulcer. Judgment alone can guide you.' The pretence that medicine can be mechanised and practised as an exact science is quackery. On the other hand, to discard all scientific discipline on leaving hospital, and to regard General Practice as a pure art, for which no equipment is needed other than a smooth bedside manner is charlatanism.

Young doctors undergo a metamorphosis on leaving hospital to enter general practice no less profound than when they left the preclinical laboratory for the hospital ward. It is a strange experience for men, straight from a teaching hospital, to find that in general practice they are expected to diagnose and treat pneumonia first, and to investigate it later; moreover, they must learn to do this with confidence in the absence of the physical signs of consolidation. This does not mean they are to make specific diagnoses without adequate reason and call every P.U.O. Influenza. It is sometimes necessary to turn a blind eye to special reports and expert opinions, which conflict with the overall clinical picture.

The relationship between the family doctor and his patient is unique. Confidence in his general practitioner gives the patient a vital sense of security. He is the first point of contact between the patient and Medicine. Though often on terms of great intimacy, he must never allow himself to become so emotionally concerned that he is unable to take the detached view that may be so vital to the patient. 'When you pray, and I don't hesitate to say that, in the presence of severe P.P.H., we all pray, let your hands be in the act of bimanual compression and not in the attitude depicted by Durer!'

His unique opportunity and responsibility is for early diagnosis. He must therefore encourage and train patients to come early, and must then try to enter the patient's mind to find out what has brought him. It may be the fear of serious disease, which entails a diagnosis or reassurance, particularly in the neuroses which readily occur among the relatives of those who die of carcinoma. It may be for the relief of symptoms, which indicate a need to share anxieties and for the relief of tension. Perhaps he 'only needs a certificate,' but listen carefully to the patient's own words, for 'Disease often tells its secrets in casual parentheses' (Wilfred Trotter). Handle even the most intimate history and examination in such a way, by simple methodical routine, that the patient is never embarrassed. The examination *must* be thorough; it gives the patient confidence, and it is quicker in the end. After the examination, an immediate decision must be made as to what course to set, whether to watch, to treat or to investigate; and the opinion and advice must then be given with courage and conviction, especially if it be negative. After specialist consultations and treatment, the final and continuing responsibility for the patient is with the family doctor.

The art of General Practice cannot be readily learnt from books or in the hospital wards. That is why students are advised to go out and observe it by visiting G.Ps. in their practices for a week or two; and later learn by practising as assistants under experienced G.P.s.

This lecture was illustrated and enlivened by many brief but fascinating case histories, and those who heard it must have come away with a fervent hope that, should they ever find themselves in need of a physician, he will be as human and as successful as this Lecturer.

OLD MEN OF THE SEA

by W. C. SPACKMAN

" Simon Danz has come home again
From cruising about with his buccaneers ;
He has singed the beard of the King of Spain,
And sold him in Algiers."—Longfellow.

I KNOW one ship's captain who would fill the part of swashbuckling old Simon, and there are no doubt many of his breed, ' square-rigged ' men, tough and salty as deck awnings, and able to make themselves understood and respected in a hundred ports all over the seven seas, but though they mostly bear a certain resemblance to each other in figure and complexion, each must be approached by a newly-joined ship's doctor with caution till his individual idiosyncrasies have been revealed. I am referring to the large class who sail the ships of about 10,000 tons which predominate in all the ports of the world.

Lest you as ship's doctor should be over-impressed with your own relative standing and importance, the ' Old Man ' will soon tell you, personally or through the Chief Officer (the mate or ' number one '), that what he says goes and no argument. If you are not very sure of your ground he will also try and teach you practical medicine as understood at sea.

Ship's doctors are notoriously divided into three classes, the young, eager and foolish, the ' dead-beats ' of any age, and the elderly retired types who will tell you that they are after all, the best bets. (I am not including the limited class, mostly in big ships, who make a career of it). Ship's doctors are engaged primarily to look after the crew and not to play ball with the lady passengers though this pastime may be indulged in with due caution. All ships on deep sea voyages, i.e. not whilst going from one U.K. port to another, must carry a doctor if there are more than 100 people or more than twelve passengers on board. Ships are generally well supplied with drugs and medical equipment and the doctor has some liberty in ordering additional items, as is easily seen by a glance at the contents of the cabinets which shew a large assortment of individual preferences, often long out-of-date or superseded. There is however a steady and considerable demand for certain items, and it is essential to carry a good stock of Mist. Mag. Trisil., Mist. Expect., Ung. Methyl Sal., ' codein ', elastoplast, epsom salts and Empl. Bellad., especially with Indian crews. In the tropics, salt tablets are freely issued to the engine room crew, but be sure that they are taken with large draughts of water. The doctor is allotted an entirely untrained and only part-time hand to tidy up the surgery, but apart from this perfunctory assistance he must manage everything unaided. If a couple of stewardesses are carried one of them may, with luck, know a little elementary nursing, but they are as a class very temperamental and I had one who went off her head and ended up by accusing a terrified passenger of putting ' germs and spiders ' in her bunk. Managing her for a full week before we reached the next port was some job when the news got abroad among the mothers of children on board. At some ports they refuse to take such a patient off one's hands. In my somewhat limited recent experience I have not had to do any major surgery though I have had fractures to set and much general sickness and minor surgery of all sorts. It is generally agreed that under these conditions it is better to trust to antibiotics and sedatives in dealing with most acute emergencies rather than attempt difficult operations, tiding the patient over to the next or nearest port.

The surgeon's duties may on occasion extend to other ships who carry no doctor. You may actually be trans-shipped at sea and in

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W. C. Spackman, M.B., F.R.C.S.E., F.R.C.O.G., was at Bart's from 1909-13. He retired from the I.M.S. some years ago and now divides his time largely between doing locum Consultant jobs as a Gynaecologist in Northern Ireland and elsewhere, and doing Ship's Surgeon jobs in the winter.

any weather to see or treat a casualty, but more often advice is asked by radio. A large tanker homeward bound via the Cape had a seaman with a fragment of cinder stuck in his cornea. It was ' causing no trouble, could they proceed on their normal way 18 days sail to Las Palmas or should they make an unscheduled call at Durban ? ' I advised the latter course and they accepted my advice but ' hoped I wouldn't mind an extra penny on Petrol ' ! I radioed back I was a shareholder in the Company and was not using my car on board.

Many ships carry lascar crews and these are mostly excellent especially the Pakistanis. I have of course a good colloquial knowledge of Urdu and get on very well with them, and can soon sort out the genuine from the ' phoney ' in the sick-parade. Many are real wags, others habitual shirkers or hypochondriacs, and a few lend themselves to the machinations of smugglers of drugs. On my recent trip to Burma we brought back an unauthorised item of cargo down one of the engine room ventilators, viz. a huge parcel of Indian hemp worth at least a quarter of a million pounds and used for making marijuana cigarettes. There was evidently a tip-off about this, as on docking at Tilbury we were invaded by a veritable army of customs searchers who after a full two days' persistence discovered the consignment. On a previous trip, my own cabin was literally taken to pieces ; with a clear conscience I urged them on with ribald encouragement and suggestions. I don't know what they were after, but they found nothing. As they left the ship I taunted them with not finding ' all those watches concealed in the surgery '. They retired in dignified silence.

I knew one captain and one mate, fortunately on different ships, who were total abstainers. Such characters are rare and it is almost a crime with good liquor available at such cheap rates. But the doctor may need to be on his toes at any time especially in rough weather when accidents are liable to occur, and passengers prefer not to be rendered unconscious by fumes of gin when being attended for one of the many small disorders and injuries so common on board, especially if they are feeling a bit seasick already. In port, more alcoholic and social liberty and latitude can be enjoyed, especially in the Far East where night life is really understood and the hospitality of the locals can be quite alarming. On one occasion, in Kobe, we were berthed next to a Swedish ship whose skipper knew our Old Man, so he and I were invited over to lunch to which the local male Swedish community was also asked, it being their skipper's birthday. Now, unfortunately for me our Old Man practically lived on hard liquor and the Swedes knew his reputation in this respect. (He was at all times an extremely able seaman). In fact they were gunning for him.

The session started relatively quietly at noon with Bols gin in tumblers. The Swedes from the port arrived soon after us and at this stage drank in relays which as guests we were not allowed to do. Lunch was at 1.30 and very excellent it was, but by then we were drinking beer in one glass and wine in another. This might have passed off quietly, but mere politeness demanded toasts to the respective crowned heads, to the two captains and to a variety of other persons and enterprises. All these toasts were drunk with enthusiasm and some with musical honours, in Swedish gin on a strictly ' no-heeler ' basis, and by the time lunch was over I for one was feeling past my best. Not so the Old Man, who went from strength to strength though several of the Swedes fell by the wayside. The session continued in the lounge with coffee and Kummel till 4 o'clock when our captain decided honour was satisfied and we took our leave, descending the gangway and returning to our ship, fortunately not far away. In spite of scurrilous reports to the contrary, I stoutly maintain I regained my cabin in a dignified and unwavering gait, though I do admit I remained there ' resting ' for some hours. The Old Man on the other hand considered this a mere aperitif and after a shower and a change of clothes went off to another party which kept him on shore till 4 next morning. He did, however, concede that we had gained two ' away ' points against the Swedes, or at least one for a draw.

THE SURGICAL TREATMENT OF ISCHAEMIC HEART DESEASE

by R. L. HURT.

Important advances in the surgical treatment of ischaemic heart disease have recently been made. Although it is difficult to assess accurately the value of these operations, the results so far are encouraging.

THE INCIDENCE of occlusive disease of the coronary arteries has greatly increased during recent years. This is partly due to the greater stress and strain of modern life, and partly to the increasing age of the population. The trend has been more marked in America than in England, and in 1949 there were in the United States over 300,000 deaths from this cause; in fact, it was the cause of more deaths than was cancer. An additional factor in this apparent increase is the greater accuracy of present-day diagnosis; coronary thrombosis was not recogniced as a clinical entity until 1912, and its occurrence was not widely appreciated until just after the first World War.

Considerable research has been directed to elucidating the cause of arteriosclerosis, but there is still very little real understanding of the basic problems involved. Until some way of preventing its development is discovered the treatment can be directed only towards the relief of symptoms and an attempt to improve the blood supply to the heart. At the present time the treatment of this condition is mainly medical; such operations as have been devised have met with much greater enthusiasm in America than in England, though even in America there has been a difference of opinion as to their value.

There have been three main approaches to the surgical problem:—

1. **Relief of pain.** The sympathetic fibres that convey coronary pain may be interrupted by excision or alcohol injection of the upper five thoracic ganglia. This procedure relieves the pain but does nothing to treat the underlying disease process; it also removes the possible protective mechanism of the onset of coronary pain on exercise.

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2. **Reduction of metabolic demands.** The body metabolism, and thus the work of the heart, may be reduced by total thyroidectomy or by ligation of the superior and inferior thyroid arteries. This operation, however, tends to convert the patient into a 'vegetable.'

3. **Revascularisation of the heart.** This is the basic approach to the problem and is an attempt to increase the blood supply to the heart. It is this aspect of the surgical treatment of coronary disease that is to be discussed here.

ANATOMY

The arterial supply to the heart is from the two coronary arteries that arise from the aorta close to its origin. The left coronary artery divides into three branches: a descending branch passing down between the ventricles, a circumflex branch passing backwards, and a branch supplying the interventricular septum. The right coronary artery is smaller and passes down between the right atrium and the right ventricle. These arteries are 'end-arteries' and have little communication with each other. Recent work has shown that minute precapillary intercoronary connections do exist, but nevertheless functionally the coronary arteries are 'end-arteries.'

The venous drainage may also be divided into two parts. The superficial veins drain 30 per cent. to 60 per cent. of the blood into the coronary sinus, and the deep (Thebesian) veins drain the remainder directly into the atria, most into the right but some into the left atrium.

PATHOLOGY

Coronary arteriosclerosis may occur as part of a generalised arteriosclerotic process that involves most of the arteries of the body

or it may occur as a limited process that is mainly confined to the arteries supplying the heart. Lipoid substances are deposited in the arterial wall in the media and also just outside the intima, and at a later stage the lipoid substances may become partially calcified. This produces the characteristic appearance of an arteriosclerotic vessel — thickening, loss of elasticity, and an increase in tortuosity. In extreme cases the artery may be converted into a fibrous, or almost stony, tube. These changes occur most commonly in the descending branch of the left coronary artery, about 2 centimetres from its origin, and an occlusion of this artery causes the typical infarct of the anterior wall of the left ventricle. The first part of the right main coronary artery is also often affected. The pathological changes are most marked in the proximal third of the artery and least marked in the distal third, and it is this fact that is of significance in the operation of arterialisation of the coronary sinus.

TRIGGER MECHANISM

The concept of ' trigger mechanism ' has been proposed by Beck as a result of his experimental work on dogs, and provides a means of understanding the nature of coronary artery disease. The blood flowing through a coronary artery that is partially occluded by arteriosclerosis may be sufficient to oxygenate the myocardium when the body is at rest, but insufficient for the increased demands of exercise. The affected portion of myocardium will therefore, during exercise, receive less oxygen than the surrounding muscle and electrical potential differences will develop as a result of this unequal oxygenation. The resulting electrical impulses may then destroy the normal mechanism of ventricular systole by preventing the cardiac muscle from contracting as a synchronous whole. This means that individual muscle fibres will contract separately, ventricular fibrillation will occur, and death will ensue. The ischaemic area of myocardium is called the ' trigger.' Since the trigger mechanism can be inhibited by an increase in blood-flow of as little as 1-5 cc. per minute, any operation that produces even a relatively small increase in blood-flow may prevent this action taking place. It is this trigger mechanism acting as the cause of ventricular fibrillation that is the explanation for the cases of sudden death in which the coronary arteries are found to be arteriosclerotic at autopsy but in which no evidence of a recent infarct can be found.

METHODS OF REVASCULARISATION

The following methods of revascularisation of the heart have been used with results that have been reported as showing a varying measure of success.

(1) Application of grafts to the heart.
(2) Cardiac vein ligation.
(3) Internal mammary artery implant into the myocardium (Vineberg operation).
(4) Cardiopericardiopexy (Beck I operation).
(5) Arterialisation of the coronary sinus (Beck II operation).

Application of grafts to the heart. The first experimental attempts to increase the blood supply to the heart were made by Beck in America in 1935 and by O'Shaughnessy in England in 1936. Beck attempted to increase the blood supply to the surface of the heart by suturing the free end of the pectoralis minor muscle to the surface of the heart, whilst O'Shaughnessy attempted to produce the same effect by bringing up omentum from the abdomen through the diaphragm ; this latter work was based on the known ability of the omentum to revascularise tissue with which it came in contact. O'Shaughnessy had performed this operation on 57 patients by the time he was so tragically killed at Dunkirk. In many instances it was possible to demonstrate small vascular communications between the grafted tissue and the surface of the heart, but the question inevitably arose as to which way the blood in these vessels was flowing — whether from the graft to the heart or in the reverse direction. In addition, it could not be demonstrated with certainty that these surface vessels communicated with the vessels in the deeper layers of the myocardium, the nutrition of which is so vital because of the action of the ' trigger mechanism ' in provoking ventricular fibrillation following an acute thrombosis.

Cardiac vein ligation was first performed experimentally in dogs in 1937 in an attempt to stimulate an over-development of the myocardial capillaries, as well as to produce an increase in the size and number of the collateral vessels in the myocardium. The operation was found to provide a significant

degree of protection against death following the ligation of a major branch of a coronary artery. There has been a renewal of interest in this operation recently, and it is now combined with intrapericardial poudrage as the Beck I operation.

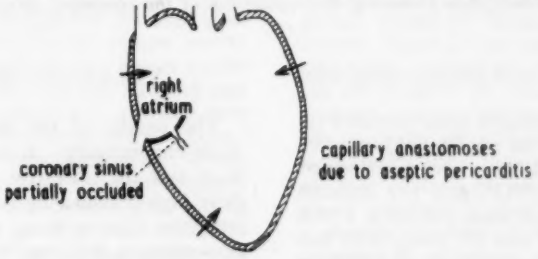
Internal mammary artery implant has been studied in dogs by Vineberg in Montreal. The open end of the internal mammary artery is implanted directly into the substance of the myocardium of the left ventricle. There is no tendency to haematoma formation and it is evident that the spongy structure of the myocardium is able to drain off sufficient blood to prevent the artery becoming thrombosed. Subsequent injection studies have demonstrated the development of a definite system of new anastomotic channels, but unfortunately these are mainly confined to the anterior half of the interventricular septum and the anterior portion of the left ventricle. Nevertheless, this is the area most commonly affected by a coronary thrombosis, and it is claimed that as a result of this operation there is a significant increase in the survival rate of dogs following ligation of a major coronary artery.

Cardiopericardiopexy (Beck I operation) Finely-powdered asbestos is introduced into the pericardial sac and causes an aseptic granulomatous reaction between the layers of the pericardium. An increase in the vascularity of the adjacent tissues also occurs and this leads to the development of capillary anastomoses between the hyperaemic area and the ischaemic myocardium. In order to encourage the development of new collateral vessels still further, the coronary sinus is partially occluded at its entrance into the right atrium, (fig. 1.)

'Arterialisation' of the coronary sinus (Beck II operation) is based on an observation which was first made by Pratt in 1898 that the isolated heart would continue to beat if the coronary system was perfused in a retrograde fashion via the coronary sinus. The coronary sinus is 'arterialised' by anastomosing it to the descending thoracic aorta by means of a venous graft. The operation is performed in two stages as otherwise myocardial congestion will lead to thrombosis of the graft. The graft is inserted at the first operation and two weeks later, when the coronary system has become used to the raised pressure, the coronary sinus is partially occluded. This results in a retrograde flow of arterial blood into the coronary system, (fig. 2.)

Beck I and Beck II Operations

The Beck I and Beck II operations have been developed as the result of over 4,000 operations on dogs. Both procedures have been found to produce a very definite increase in the blood supply to the heart, as shown by the mortality and the size of the infarct resulting from ligation of the descending or the circumflex branch of the left coronary artery. This increase is more marked after the Beck II operation, as also is the backflow of blood from the divided ends of these arteries. This backflow is venous in character, which indicates that the arterial blood from the coronary sinus has been utilised. However, the operation is technically more difficult to perform, must be carried out in two stages, and carries a higher mortality; furthermore, it has been found that the graft loses contact with the capillary bed after about two months. For these reasons it is thought that the Beck I operation is probably the more satisfactory procedure



BECK I OPERATION

Fig. 1

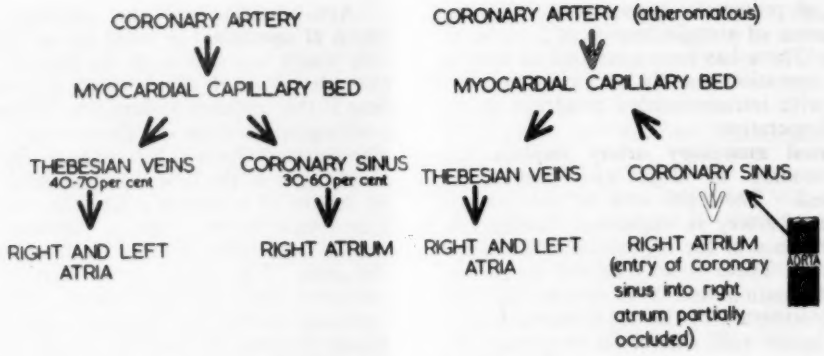


Fig. 2. On the left, normal blood flow through the coronary circulation; on the right, blood flow following arterialisation of the coranary sinus

and is the one that is at present being used in man.

Beck and his associates have operated on 186 patients during the period 1932 to 1954. Thirty-seven operations were performed between 1932 and 1942[1], and 149 between 1945 and 1954[2]. Their ideal patient is a thin subject, between 40 and 60 years, who has been suffering from symptoms of coronary insufficiency for a year or more, but is still reasonably active. He should not have had a coronary thrombosis during the previous six months, nor should he have any evidence of heart failure or a dilating heart ; however, moderate cardiac enlargement is not a contra-indication.

During the period 1951 to 1953, when 108 operations were performed, the operative mortality was 2.8 per cent. for thoracotomy alone, 7.5 per cent. for Operation I and 26.1 per cent. for Operation II. There were only 2 deaths in the 27 patients treated by Operation I during 1954. Of those who have undergone the Beck I operation, 33 patients have survived three months to five years. The pain has been completely relieved or markedly reduced in 28 patients (84.8 per cent.), whilst there has been an increase in ability to work in 26 patients (78.9 per cent.). The Beck II operation has been carried out on 43 patients. There has been complete or partial relief of pain in 38 patients (88.4 per cent.) and an increase in capacity for work in 34 patients (79.1 per cent.).

VALUE OF OPERATION

The results of the Beck I operation are most encouraging. It is a one-stage procedure and the operative mortality is not unduly high considering the seriousness of the condition that is being treated. It must be remembered, however, that owing to the unpredictable nature of the disease it is extremely difficult to make an accurate assessment of the value of these operations for coronary insufficiency. One patient may improve without operation, whereas another patient may go rapidly downhill. Even resort to statistics (which are often so misleading) is of little help. In a series of over 1,700 cases, for example, the duration of life after the onset of severe coronary symptoms was estimated at 3.7 years, whereas in another series of similar patients the duration of life was very much longer — 73 per cent. were alive after 4 years and 38 per cent. after 10 years. From these figures it can be seen that the outlook is very variable[3]. Although the long-term results of the Beck I operation will not be known for a number of years, it can at least be said that the operation has been shown to be based on sound physiological principles and that it has proved to be of value in the experimental animal. The late results of the operation will be awaited with interest.

Acknowledgment

The author wishes to thank Mr. N. K. Harrison for the two illustrations.

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(Reprinted from MEDICAL WORLD, Volume 85, 1956, September, page 217.)

A NOTE: WINTER 1889-90

by DR. F. PARKES WEBER

THIS WINTER was remarkable for the influenza epidemic, that attacked almost everybody about Christmas time. I was senior House surgeon for Sir William Savoury and was privileged in having some splendid men as dressers to help me. One named 'Long' West to distinguish him from other Wests, is accidentally represented on a photograph that I possess of the house staff, sitting around the fountain. West had sailed to America and the West Indies under his father, a sea captain in the old days, when long nights without any wind had to be filled up sometimes by singing Dibdin's well-known songs of the 'Tom Bowling' type. He often delighted us with his sailor songs and his sailor memories. He was a good man at amateur theatricals, and at the winter theatrical entertainment at the hospital successfully acted a leading part in one of Sheridan's plays, though he had considerable influenzal fever at the time. I quite lost sight of West, but in the first world war he distinguished himself by his enthusiastic service in the Territorial Army, when my younger brother, then a staff officer, made his acquaintance in France, where West was wounded.

Another dresser, a great friend of West, was Bruce Seaton. His services to me were invaluable. How well I remember him holding up a leg, while I was applying a plaster bandage, uncomplaining, though he must have felt as if his back was breaking. He himself was always ready, and on one occasion I remember his calling me to see a case in the ward, when I was writing out something in my room. I said 'Just one jiff.' He said 'I do really believe that on the last day, when you are finally called away, you will say, "Just one jiff".' He was a patriotic member of the London Scottish Volunteer Corps, and once the door of my study room was suddenly pushed open and in marched Seaton in full uniform, playing the bagpipes. He entered the Indian Medical Service and finally succeeded to a very old baronetcy.

Another incident in my memory is a visit from L. A. Lawrence, a former house surgeon of Sir William Savoury. He was, like I, a collector of old coins, and he astonished me by showing me a silver penny issued by a Baron named Eustace. Coins of Eustace were well known, and were generally believed to have been issued by Eustace, the son of King Stephan, but the specimen shown me by Lawrence had the legend: EUSTACIUS FILIUS IOANNIS and was clearly issued by Eustace Fitzjohn, a well-known baron at the time of Stephan and Mathilda. Lawrence afterwards presented his specimen to the British Museum. It still remains unique, but has, I believe, made all the Eustace pennies to be attributed to Eustace Fitzjohn, instead of to Eustace Fitzstephan. There is, I understand, no doubt as to Lawrence's specimen being genuine.

Another member of the house staff on the photograph which I mentioned is Henry Huxley, one of the sons of Thomas Henry Huxley. I afterwards met Dr. Henry Huxley in consultation on a most remarkable case. The patient was the young Count Waldstein, representative of the old Waldstein family, of which Wallenstein, the famous general of the Thirty Years War, was a member, though he preferred to be called Wallenstein, instead of Waldstein. The young Count Waldstein was living in London under the watchful eyes of the Austro-Hungarian Embassy, when he developed what seemed to be influenzal pneumonia. The Embassy asked me to look after him. When I arrived I met Dr. Henry Huxley, who had been sent by the patient's mother. She, after the death of her husband, had married an English general and was living with him on the French Riviera. Huxley and I agreed to look after him together, but we asked the President of The Royal College of Physicians, Sir Richard Douglas Powell, to help us. After a little time the signs at the lung bases slowly cleared up, and following a period of convalescence the patient accep-

ted an invitation to go to India as the guest of one of the rich Indian Princes. Apparently he caught malaria in India and was sent to one of the hill stations, but failed to respond to treatment and died. A full post-mortem examination was made, not only for the sake of his mother and stepfather, but also on acount of some London Insurance Companies, in which his life was heavily insured. Fibro-caseous disease of the supra-renal capsules was discovered and the case was regarded as one of Addison's disease, in which pigmentation was not as yet a prominent feature. A full account was sent to all those interested in the matter, including Sir Richard Douglas Powell and the North British Insurance Company, of which I was an examiner. I was shown the document, although I myself knew nothing of the patient's life having been insured.

MEDICAL EDUCATION IN VICTORIA

by SURGEON LIEUTENANT R. J. KNIGHT, R.N.

RECENTLY I was lucky enough to spend six weeks in Australia. The Medical Superintendent of the Royal Melbourne Hospital, Dr. P. N. O'Donnell, and the Director of Anaesthesia, Dr. Norman R. James, were kind enough to attach me, unpaid, to the anaesthetic department for some four weeks. Most of the time I was not on the medical register of the State of Victoria, so I had no responsibilities. For ten days I was a registered practitioner and was so allowed to give anaesthetics instead of just watching. While I was there I noticed some differences and many similarities between the Royal Melbourne and Bart's. Both are great teaching hospitals known the world over. But we at Bart's know very little of Australian medicine and I hope that this article will be able to do a little to correct this. Of course only my own views are expressed here. I can only give an account of what I understood from conversation with the doctors I met. I may have missed the point more than once. If so, I hope my Australian friends will forgive me and point out my errors.

The medical course at Melbourne starts with three years at the University covering the preclinical subjects. During these years there are occasional lectures at the hospitals. Then the students have the choice of various hospitals, the Royal Melbourne and the Alfred Hospital among them, for their clinical work. They remain members of the university and have some lectures there, though most of their time is spent in the hospitals. The students have a less important part in the running of the hospital than at Bart's. I heard two surgeons discussing the proposal that students should spend an extra two afternoons in the surgical wards each week. Both of them could see no benefit from it as there 'would not be enough work to keep the students interested.' I remembered to keep my mouth shut for once and did not start asking the questions that I was itching to ask. The greatest difference between the two hospitals was that I only saw four students in the theatres in the whole four weeks, and they were doing their anaesthetic course. Unlike Bart's, the students are not wanted in the theatres, and so the H.S. when newly appointed is in the same clueless state about the surgeon's next move as is the first time dresser at Bart's. The teaching is spread out and not concentrated into our three-month firms. The ground covered in a year is about the same, but medicine, surgery and other subjects have all been taught each week. This system probably gives a better understanding of the interdigitation of the various specialities than our method. It does mean that the student cannot develop the same interest in, nor pay so much attention to, his individual patients as at Bart's. He is not expected to do dressing nor to take blood, which are both responsibilities of the nursing staff. The students have a long summer vacation over Christmas. There are none in the hospital for about six weeks. That, of course, means that they do not miss

lectures by going on holiday as often happens at Bart's.

The Royal Melbourne Hospital, which was due for rebuilding when the war broke out, was built by the American Forces. When they had finished with it the hospital was handed back to the Royal Melbourne Hospital Committee of Management. It is the third Royal Melbourne Hospital and a very fine ten-storeyed building (Fig. 1). The plan is a cross of Lorraine without the topmost vertical section. The Nurses' Home is at one side and the Residents' Quarters are behind. It is all a great deal more compact than Bart's and situated in a much better setting. The wards are divided into four, eight or sixteen bed rooms with glass partitions so that there are no more than four beds in each section. A ward will have

Fig. 1 — The Royal Melbourne Hospital

some rooms for men and others for women. While I was there curtains were being fitted round some of the beds, like those that have been up for some years in Bart's. I cannot comment on the running of the wards, as I did no more than poke my nose into an inhabited ward. Because of the rooms, it must be very difficult to keep an eye on more than half the patients in a ward, unless you can see round corners. Just to sight all the patients at once needs three or four people. This extra call on nursing power is the big drawback to small wards, desirable though they are from the patient's point of view. They need more night nurses than big wards for the same degree of patients' safety. Snell (*Lancet* 1956 ii 1202) found an accident rate among the patients of a general hospital group of aproximately 1.8% over two years. He only considered those accidents 'recorded in sufficient detail for present purposes' which was an analysis of causes of accidents. One of his recommendations to reduce patients' accidents was 'Careful attention to patients' excretory needs by the nursing staff.' This is easier in an open ward hospital like Bart's, than in those with small wards. A commentary on the different systems of medical practice in Australia and England is provided in the 1955-1956 Annual Report of the Royal Melbourne Hospital. 110 medical staff, of a status corresponding to 'consultant' in England, are listed. This is for a hospital of 612 beds. Twelve of these senior men are salaried, the rest are honorary. Including clinical assistants, many of whom are general practitioners, there were just over 300 honoraries, 29 of whom were consultants retired from active hospital practice. This large number comes, I believe, from the competitive struggle in specialist practice, which no longer is as profitable as it was, and so men are less willing to donate large portions of their time for hospital work.

In September, 1955, the first professors of Medicine and Surgery in the University of Melbourne were appointed. They have beds in the Royal Melbourne Hospital and in the Alfred Hospital. I met Professor Ewing, who is shown operating in Fig. 2.

The Alfred Hospital has never been completely rebuilt, it has just grown. The block that was built just before the war is attached to the old buildings. A block containing the new kitchens is as far as the post-war money has gone in new buildings, though much has been modernised. While I was there an endocrine ward and laboratory were being completed in what had been a ward. It is a friendly rabbit warren of a place and very easy to get lost in.

The standard required to pass the final examination in the University of Melbourne, which is the only medical school in Victoria, is high. I was privileged to attend a discussion by a group of final year students, with a pathologist asking questions, of a case report and the post-mortem findings. Much of what they were expected to know had either not been learnt or had been forgotten by me. When the young man or woman has qualified there is no legal obligation to serve a year in a hospital as there is in this country, but most do. A rough outline of the system at the Royal Melbourne is that the

housemen are appointed for a year. There is only one qualifying examination a year. During their year on the 'House' they do three months of surgery and of medicine, a month of anaesthetics, two months of casualty and three months of other departments. Some people might say that this rotating leads to a superficial knowledge of their subjects, but the results quite definitely justify the system. About half the Housemen do a Senior House Physician or Surgeon job, which lasts another year. There are three Resident Surgical Officers and two Resident Medical Officers who correspond to our registrars.

Fig. 2 — Professor Ewing operates

During the time that the junior residents are working in the anaesthetic department they are only allowed to give open ether without supervision. This is the only anaesthetic technique that the students are taught. In England this seems strange, but one must remember that outside the capital cities, where about three-quarters of the population is concentrated, there are, by English standards, very few large towns, and even fewer which can support specialist anaesthetists. This means that many anaesthetics have to be given by general practitioners. Add to this the cost of anaesthetic machines, gases and their transport, the remoteness of many doctors who may spend their working lives many miles from the next doctor, the dangers inherent in occasional anaesthetics given by an inexperienced man, it is obvious then that the teaching of open ether becomes a very wise insurance. During their time in the department the residents are taught the more elegant methods in common use, but may only use them under supervision.

Though the standard of knowledge required by the examiners is the same in the two countries, the methods and emphasis of the teaching are different. Australia has no health service with its rigid division between hospital and general practice. Only in the capital cities can a doctor earn his living at a speciality alone. So the emphasis is on general practice. But I believe that the practical techniques are learnt, even more than in this country, after qualification. The whole aim seems to me to be to produce a safe and knowledgeable general practitioner who can practise if necessary without the backing of hospital specialists. This our system does not do, though Bart's gets nearer to it than some of the Provincial Medical Schools. Perhaps their system is not as good as ours, but it is workable and with the size and population of Australia, it is the only possible system; with G.P.s running many of the hospitals.

PULMONARY FUNCTION TESTS AND THEIR CLINICAL APPLICATIONS

by R. MARSHALL.

FUNCTION TESTS have played, for many years, an important part in the investigation and management of diseases of the urinary and hepatic systems, but tests of respiratory function have been developed to any appreciable extent only during the last 15 years. There are several reasons for this difference between the investigation of hepatic or renal function and the investigation of pulmonary function. The patient's history, the clinical examination and plain radiographs give a far fuller picture of respiratory disease than they do of renal or hepatic disease, and in many patients with respiratory disease there is no need for further investigation. In the past a chest physician was mainly concerned with the cure of acute or chronic chest infections such as pneumonia or tuberculosis. Now acute chest infections are more easily controlled and tuberculosis is becoming less frequent and, on the whole, more easily managed. Chest disease is now more often due to the other scourges of our ageing, tobacco-addicted and soot-breathing population, namely chronic bronchitis, emphysema and carcinoma of the bronchus. Medical treatment has as yet made no great progress against these diseases. Chronic bronchitis and emphysema both produce effects on pulmonary function which may be out of proportion to findings on clinical or x-ray examination and the lung function in carcinoma of the bronchus is often of importance if surgical treatment is contemplated. Now that acute infections play a smaller part in chest medicine, an interesting but less common group of chest diseases, such as sarcoidosis and other infiltrative diseases has been thrown into greater prominence. The shift in the type of chest disease has therefore placed more emphasis on the importance of lung function in the diagnosis and management of lung diseases.

Because of the time and equipment required to carry out a full investigation of pulmonary function, laboratories equipped to perform these tests are not numerous. Such a laboratory is of most value in a chest hospital or in association with a department of thoracic surgery. The purpose of the present article is to outline some of the pulmonary function tests which are available and to indicate the uses and limitations of these tests.

PULMONARY FUNCTION TESTS

1. **Lung Volumes.** The subdivisions of the total lung volume are shown in fig. 1. A group of American respiratory physiologists agreed to standardise this nomenclature for the subdivisions and most British respiratory physiologists have followed suit. For practical purposes these lung volumes can be considered in two groups; first, the subdivisions of the vital capacity which can be measured by the use of an ordinary spirometer and secondly, those which require more complicated apparatus for their measurement. Into this latter group fall the functional residual capacity and the residual volume. These volumes cannot be completely expired from the lung and methods capable of measuring the gases whilst still in the lung have to be used. Several techniques exist for measuring this remaining gas in the lung, but the simplest method, the helium dilution method, depends on mixing helium in a closed circuit with the gas in the lungs until the gas in the circuit and in the lungs are in equilibrium. The volume of gas in the lungs can be calculated if the initial volume of the circuit, the initial concentration of helium and the final concentration of helium are known. This method is possible because helium is almost insoluble in lung tissues and blood and it is therefore confined to the gas space of the

lungs ; it is simple only because the helium concentration can be measured rapidly and continuously with a katharometer.

Fifteen years ago measurement of lung volume were almost the only measurements of lung function which were made. These measurements still have some use and they are usually made on patients, in whom the respiratory function is being investigated, for much the same reason that one measures the height and weight of a patient admitted to hospital. These measurements give very little information about the type of respiratory disability from which a person may be suffering ; they are of about as much value in diagnosis as the measurement of height in a patient suffering from a skeletal disease.

2. **Distribution of Inspired Air.** In a normal person the inspired air is distributed fairly uniformly to all alveoli, but in a disease such as emphysema some parts of the lung receive most of the inspired air and other parts very little. The parts of the lung receiving very little air may still be well perfused with blood and in these parts of the lung the gas exchange will be inadequate. The evenness of distribution of the inspired air can be estimated during the measurement of the functional residual capacity by recording the speed at which the inspired helium mixture comes into equilibrium with the gas in the lungs.

3. **Tests of Ventilatory Capacity.** One of the reasons why a measurement such as the vital capacity gives so little information about the lungs is that it does not take into account the time factor. It is of no advantage to a person to have a vital capacity of five litres if it takes him 20 seconds to breathe in this volume of air ; a normal person breathing through a narrow tube still retains his normal vital capacity, but he will find his exercise capacity severely limited. It is for this reason that simple tests have been devised for measuring the volume of air that a person can expire in a given time so that an estimate of the resistance to air flow can be made. The advantage of these tests is that they are quick and simple to perform and for some purposes they tell us what we are most interested in, how much air a person can breathe in and out in a given time. For other purposes such as the assessment of air flow resistance the results must be interpreted with caution for increased flow may be due to an increased muscular effort, e.g., accompanying the euphoria produced by cortisone, and may be misinterpreted as the result of reduced air flow resistance.

The two tests used for measuring the ventilating capacity are,

(a) *The maximum breathing capacity.* This is the volume of air that a person can breathe in and out per minute when he is breathing as fast and as deep as he can. The test is usually carried out for 15 seconds and the apparatus used, either a spirometer or valves and a collecting bag, must have a low resistance. The disadvantages of the test are that it is fatiguing to the patient, it induces dryness of the throat which often brings on an attack of coughing before the completion of the test, and the result is dependent upon the rate at which the subject chooses to breathe.

(b) *The forced expiratory volume.* The apparatus used for this test is a lightweight spirometer and a rapidly moving kymograph. The subject after a full inspiration, breathes out as hard as he can. From the tracing obtained a volume expired in a given time is measured, or alternatively, the time required to expire a given volume. In the latter case the result is expressed as a flow rate (litres per minute). This test has less disadvantages than the maximum breathing capacity. It is easier to perform and the results are more reproducible so it has, in most laboratories, replaced the maximum breathing capacity as a measure of the ventilating capacity of the lungs.

4. **The Diffusing Capacity of the Lungs.** The diffusing capacity of the lungs is the rate at which a gas, such as oxygen, can be transferred from the alveoli into the blood. It is expressed as millilitres of gas transferred per minute per mm.Hg. pressure gradient between the alveoli and the blood. The rate of diffusion of a gas through a membrane is directly proportional to the solubility of the gas and inversely proportional to the square root of its molecular weight. Carbon dioxide has a solubility 25 times that of oxygen and a molecular weight only 1.4 that of oxygen so that the diffusion of carbon dioxide presents no difficulty even in diseased conditions of the lung. Retention of carbon dioxide, when it occurs, is due to poor ventilation of the lung, never to impaired diffusion. The diffusing capacity of the lung for oxygen (DO_2) has only a small reserve in a normal person at rest and in fact the DO_2 has to

increase two to three fold on exercise to allow the necessary amount of oxygen to be absorbed. Because of this small reserve any reduction of the DO_2 by disease may limit the patient's maximum oxygen uptake and so a measure of DO_2 is often of great value in the assessment of respiratory function. The measurement of DO_2 presents some difficulties because we need to know the rate of uptake of the gas per minute and also the tension gradient from the alveoli to the capillaries. The tension in the alveoli is fairly easily measured but to obtain the tension in the capillaries it is necessary to measure the tension of oxygen in the arterial blood when the patient is breathing air and a low oxygen mixture. For technical reasons the diffusing capacity for carbon monoxide is usually measured in this country. The technique is simple because carbon monoxide can be measured accurately and rapidly by means of an infra-red spectrometic method. Carbon monoxide behaves similarly to oxygen in its uptake by the blood and the back pressure of carbon monoxide in the capillary blood, although not now considered to be negligible, can be measured much more easily than that of oxygen.

5. **The Arterial Blood Gases.** Respiratory insufficiency at rest or on exercise is often shown first by a fall in the arterial oxygen saturation. An arterial oxygen saturation less than 95% at rest is abnormal but cyanosis is not usually apparent clinically until the saturation has fallen to 80%. Accurate measurement of arterial oxygen saturation requires arterial puncture and blood gas analysis but measurements to within about 4% can be obtained by the use of an ear oximeter. This apparatus is particularly useful for measuring the fall in arterial oxygen saturation when a patient exercises. Determination of the oxygen content of the arterial blood when a subject is breathing oxygen allows one to differentiate between cyanosis due to disease of the lungs

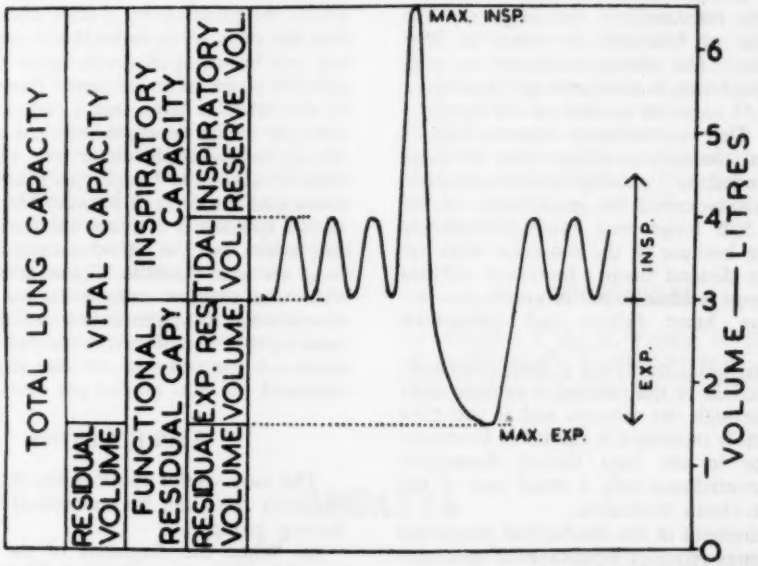

Fig. 1. Spirographic tracing to show the nomenclature of the subdivisions of lung volume. The lung is divided into 4 primary volumes (column A). Subdivisions of lung volume containing two or more of the primary volumes are termed "capacities" (columns B, C and D).

and that due to a shunt of venous blood into the arterial system.

Failure to eliminate carbon dioxide is common in patients with emphysema and is also liable to occur in patients during anaesthesia. In subjects with normal lungs CO_2 retention can be detected by analysis of the alveolar air but in emphysema the composition of the alveolar air is not uniform and the CO_2 tension of the arterial blood must be measured.

6. **The Mechanics of Breathing.** The mechanical resistances of the lungs which have to be overcome during breathing are the elastic resistance of the lungs and the non-elastic or frictional resistance to lung movement. The elastic resistance, or stiffness of the lungs, is measured as the pressure in cm.H_2O required to distend the lungs by 1 litre. This is sometimes expressed as its reciprocal, the number of litres that the lungs are distended by 1 cm.H_2O increase in pressure; this is called the compliance of the lungs. Stiff lungs may cause difficulty in breathing because of the muscular work required to distend them. Increased stiffness of the lungs is often found in mitral stenosis, congestive heart failure and pulmonary fibrosis.

The frictional resistance to lung movement is due mainly to the resistance to movement of air through the airways and is therefore considerably increased in asthma. Frictional resistance in the lung tissues themselves usually contributes only a small part of the total non-elastic resistance.

Measurement of the mechanical properties of the lungs requires simultaneous measurement of the force exerted on the lungs, that is the intra-pleural pressure, and the rate of air flow and volume change produced. During recent years it has been possible to make these measurements in patients by use of the intra-oesophageal pressure instead of the intra-pleural pressure. A thin walled balloon situated in the lower one-third of the oesophagus can be used to record pressure fluctuations which have been shown to be almost identical with the fluctuations of intra-pleural pressure which occur during breathing. The non-elastic resistance of the lungs measured by these methods is measured in absolute units and is not dependent upon the co-operation of the subject so it provides the ideal measurement for assessing the effect of treatment on air flow resistance.

7. **Bronchospirometry.** This is the technique by which the respiration of each lung can be observed separately. A special double lumen catheter is introduced into the trachea under local anaesthesia. One branch of the catheter lies in the left main bronchus which is sealed by an inflatable cuff around this branch. The other lumen of the catheter connects with the trachea above the cuff and thus receives air from the right lung. Escape of air around the catheter is prevented by a second inflatable cuff surrounding the catheter in the trachea. The catheter can be introduced 'blind,' but it is advisable to check the position by x-rays and to ensure that the cuffs when inflated are not obstructing any branches of the bronchi. Care must also be taken to avoid leaks from one lung to the other or from either lung to the outside air. The measurements usually made during bronchospirometry are the relative ventilation of the two lungs, the vital capacities and the oxygen uptake. Measurements of the functional residual capacity, the lung mechanics and the diffusing capacity of each lung are also possible. These measurements show the amount contributed by each lung towards the total ventilation and oxygen uptake so that the effect on the pulmonary reserve of the removal of one lung can be assessed.

APPLICATIONS

The most useful applications of pulmonary function tests can be considered in the following groups:—

(a) When the diagnosis of the disease is known, e.g., asthma, for the objective assessment of treatment. Pulmonary function tests may also reveal the existence of other lung disease.

(b) In heart disease they may indicate to what extent the dyspnoea is due to primary respiratory disease, e.g., in elderly patients with heart disease dyspnoea may be due more to emphysema than to heart disease. Cyanosis due to respiratory disease can be differentiated from that due to a shunt of venous blood.

(c) In dyspnoea of unknown origin. Measurements of pulmonary function may detect the presence of respiratory disease. The use of a battery of tests, measuring all aspects of pulmonary function, may often give information which is of diagnostic value in difficult cases.

(d) The objective assessment of exercise tolerance and the differentiation of effort syndrome from respiratory disease.

(e) For better understanding of the changes in function which occur in respiratory disease, e.g., the cause of the rapid shallow breathing in pneumonia.

(f) Observations on the progress of lesions of pulmonary function in relation to the natural history of respiratory diseases.

(g) Assessment of the fitness of patients to withstand anaesthesia or the removal of lung tissue.

It must be stressed that pulmonary function tests are solely measures of function. The place of pulmonary function tests in medicine may be illustrated by two examples of common pulmonary diseases. Consider first a patient with tuberculosis. In such a patient the diagnosis is bacteriological and the extent of the lesion can be determined radiologically. Pulmonary function tests are of little value in a young patient with minimal lesions, but if surgery is contemplated, particularly in the older age groups, pulmonary function tests will be of value in estimating the respiratory reserve and the reduction in lung function to be expected from the removal of lung tissue. Secondly, in asthma, the diagnosis is made clinically from the history and the examination of the patient, but pulmonary function tests can help by objective assessment of treatment and by distinguishing bronchial asthma from emphysema which is likely to be resistant to bronchodilator drugs.

It is difficult, in a few lines, to give normal values for the results of pulmonary function tests. Normal values for all tests depend on the size of the patient or upon the size of his lungs and in some instances are also affected by age, sex, height and weight so that normal values have to be calculated for each subject. Tests, such as the maximum breathing capacity and the forced expiratory volume, in which high flow rates are reached, are also affected by the mechanical resistance of the apparatus used and normal values should be stated for each particular apparatus.

For a more complete and readable account of respiratory physiology and the aplication of pulmonary function tests the book 'The Lung' by Comroe et al. is recommended.

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REGATTA

THE Sailing Club Regatta was held this year in very kind weather. The Clubhouse was filled to capacity every night— indeed, some of the ladies slept in the Royal Burnham Yacht Club.

The sailing on Wednesday started at an early hour, several eager sailors having spent Tuesday night in the Clubhouse. The wind freshened considerably during the day, and sailing was stopped for that afternoon as the N.W. wind and a strong ebb tide had knocked up quite a steep sea; however, everyone had a chance to sail in the late afternoon and evening. There was no racing on that day.

On Thursday morning and afternoon, two heats of the Commodore's Trophy were sailed off, there being a steady four-knot wind throughout the day. Those who did not sail in the U.H.S.C.'s 1 footers either went out with the Secretary in the twelve square metre sharpie 'Halloween,' or went cruising in two sixteen-footers with cut-down rig which were owned by the local yacht chandlers; it is said that one of the sights of the day was one of these boats tethered to the bows of a yacht with a cursing crew trying to free her rigging from the yacht's bowsprit. On Thursday, Jane Chambers won a substantial fortune by giving an impromptu aquatic display.

Friday started as a dead calm in the sweltering heat of an unclouded sky. The Ladies' Race was raced in the morning, a provident land breeze springing to life at the same time as the race started. This race was won by Bethan Thomas. The secretary had taken a sharpie and an eagle-eyed crew which in-

cluded Mr. Alment and John Dawson, and sailed upstream to look for Amber, one of the U.H.S.C. dinghies which had vanished overnight, trailing 3 fathoms of rope and an anchor. Needless to say, this search party found nothing, whereas those racing found her downstream and she was collected during the afternoon.

The final of the Commodore's Trophy was raced during the afternoon and was won by David Welch, with Brian Pitcock second, and Tony Ellison third.

The dinner, which took place in the evening, was attended by about 20 people, and the prizes were presented by Mr. Alment, the Rear Commodore.

Due to the good support, the lovely weather and brilliant catering by a team headed by Barbara Barnard, this year's regatta can fairly be counted amongst the successful events of the summer, but had the weather been more difficult, a different picture might well have been presented, as the general standard of helmsmanship and boat knowledge was appallingly low and it was this factor which caused us to cancel the seamanship race. Unless support for the U.H.S.C. is more enthusiastic and unless more experience is gained in the handling of the firefly on the Welsh Harp, or by more frequent outings at Burnham, there will be no reasonable helmsmen left in the hospital, and the regatta will become a farce in anything but light weather.

If this state of affairs came to pass, we would have to drop out of Inter-Hospital racing, in which we are still a formidable force. The subscription to the U.H.S.C. is only £1 per annum, extras being paid by the Sailing Club. Those interested should contact Robin Ridsdill-Smith (Clinical) or David Welch (Preclinical).

Results

Commodore's Trophy

Heat 1—

1.	Amber	D. Welch
2.	Turquoise	A. Ellison
3.	Jet	B. Pitcock
4.	Tourmaline ...	M. Bonnemeyer
5.	Garnet	J. Neely

Heat 2—

1.	Jet	Miss W. Donaldson
2.	Tourmaline ...	M. Harlan
3.	Amber	B. Richards
4.	Garnet	L. Farrow
5.	Jade	H. Richards
6.	Turquoise	D. Wells

Final—

1.	D. Welch	in Jade
2.	Pitcock	in Tourmaline
3.	A. Ellison	in Jet

Retired: Miss W. Donaldson, L. Farrow.

Ladies' Race

1.	Turquoise	Miss B. Thomas
2.	Jade	Miss J. Chambers
3.	Garnet	Miss W. Donaldson
4.	Jet	Miss M. Coakley
5.	Tourmaline ...	Miss B. Barnard

GOLF: THE STAFF MATCH

ONCE a year, soon after View Day, numbers of people are to be seen converging on the square, from places as divergent as the Skins Department and that of Radiotherapy, carrying all the cumbersome impedimenta of the golfer's art for the Match between the Staff and Students.

This year there were signs that the match had started long before a ball had been struck as many of the Staff teed off with the 'I'm starting from Harley Street — gambit — surely with at least one extra bisque?

In brilliant sunshine we set off for Denham, and after many excursions to avoid traffic delays arrived at the course. Luncheon having been taken and the matches arranged, the business of the day began. This year the Staff were to receive two bisques, having carried all before them with three last year.

With the first drives accomplished (for the most part successfully), fourteen matches were soon in progress. There was much bisquing on the earlier holes and everyone was enjoying the congenial surroundings very much.

Denham is a charming course; the fairways, of generous width and kindly length, have a splendid variety about them and a

freshness not surpassed even by that of the geraniums in the Square the week before! Under a warm sun the battle raged all afternoon, but by teatime the result was clear — next year the Staff are to have three bisques again. However, some matches were close and the Staff had some convincing victories. Dr. Graham had worn down Dobson by sheer accuracy from the tee, and on the green. Dr. Hayward, playing his annual game of golf, had corrected any arrhythmias him swing might have had in previous years to beat Mulcahy, and Mr. Hankey and Dr. Hanbury each had good wins against Fuge and Sugden.

After tea, nine holes of foursomes were played and in these the honours were equal.

It was a highly satisfactory result for all concerned.

Results :—

Dr. G. Graham bt. J. C. Dobson.
Dr. G. W. Hayward bt. Dr. P. D. Mulcahy.
Mr. G. T. Hankey bt. C. A. Fuge.
Dr Young halved with P. Drinkwater.
Dr. Brewer lost to G. F. Abercrombie.
Dr. P. Borrie lost to R. C. G. Hughes.
Dr. Kemp-Harper lost to C. G. Stephenson.
Mr. I. G. Williams lost to C. G. Stephenson.
Dr. J. P. D. Thomas lost to A. W. Galbraith.
Dr. A. Parrish lost to E. J. Batterham.
Dr. Hanbury bt. J. C. Sugden.
Dr. McIlroy lost to M. J. Scorer.
Dr. J. Morrell lost to J. McKenzie.
Dr. Davidson lost to Dr. H. J. O. White.

We are most grateful to all the members of the Staff who provided us so generously with all the comforts which the Denham Golf Club had to offer.

SPORTS NEWS

VIEWPOINT

ALTHOUGH at the time of writing one may view such sporting events as the Regatta at Burnham, Sports Day and the semi-final of the Cricket Cup with interest and anticipation, such is the time-lag in the production of this magazine that by the middle of July any observations will be well out of date. An innovation in the sports news is the printing of cricket scores. This we feel will give a more personal atmosphere to what otherwise tends to become an anonymous diatribe with the occasional star picked out. The Cricket Club are to be congratulated on their double success over the London Hospital in both the Senior and Junior sections of the Cup. One may thus derive some sense of retribution from previous defeats at their hands.

The Sailing Club, by means of intensive publicity and goading by its more active members, have received their dividends in the form of a strong turn-out of hands in their Regatta — other clubs please note!

By organizing a dance in College Hall, the Rugby Club have shown that they are by no means dormant in the summer months. In this sphere they are all-powerful because of the large following which they enjoy and they are to be congratulated on having provided some initiative. Other clubs have often been criticised for not providing summer dances, but as one can gather from any one of the treasurers, similar efforts in previous years made by the less well patronised clubs have met with dismal financial failure, irrespective of the social success they might have been at the time.

At the Golf Club's Annual Match with the Staff at Denham, it was remarked that several former illustrious golfers on the Staff were not present. Although academic reasons might have been responsible, it is to be hoped that the Staff will be able to continue to support the annual matches with whichever club they favour. Student-Staff matches are usually regarded as important events during which social intercourse may be indulged.

A new scene has been dominating the peace of the lawn at Charterhouse. Croquet seems to have taken over the place of Miniature golf. Could it be that we are witnessing the birth of a new club in the hospital? Perhaps someone with a knowledge of the real rules of the game will soon come forward to found a Croquet Club.

CRICKET CLUB

The following gentlemen have been awarded Honours:—

J. B. Nichols
H. P. H. Bower
A. P. Marks.

CUP MATCH (SECOND ROUND)

St. Bartholomew's v The London Hospital

Played at Chislehurst on May 22nd and won by six wickets.

Having been drawn a bye in the first round, the hospital faced the London with several scores in other athletic fields to settle. In spite of a sharp shower, play started on time with the London winning the toss and choosing to bat on a damp but innocuous wicket.

The Hospital opened with Garrod and McKenzie, and had an immediate success when Nicholson took a catch behind the wicket off Garrod's second ball. Further accurate bowling saw the London wickets falling steadily, and in spite of some sturdy blows from the tailenders their innings closed at 167. J. Nichols had bowled with intelligence and without much luck, and well deserved his four wickets, while it was heartening to see Whitworth bowling at something like his old pace. The bowlers were backed up by fielding which although workmanlike was not adequate for further cup ties.

Bart's had thus 168 runs to make to win, on a very easy paced wicket, and this they achieved for the loss of four wickets. Nichols crowned a most successful day's cricket with an unbeaten 65 full of delightful strokes, and Whitworth was unfortunate to be run out after looking well set.

Although this game resulted in a win, as a spectacle there was little about which to enthuse. The hospital must try and maintain a firmer grip on the game, especially when the opposition lower order batsmen are hitting the ball hard and tending to get on top. The first Cup game against the Middlesex was almost lost in this fashion, and if the hospital are to proceed further in the Competition this must be rectified.

London Hospital

H. J. Lloyd, c Nicholson, b Garrod	0
J. Fosh, b Whitworth	11
A. J. Simmonds, b Nichols	27
G. Hawke, b Whitworth	36
R. Gaertner, c Garrod, b Whitworth	13
W. H. Marshall, b Nichols	2
A. Dastur, b Nichols	14
A. C. Fernando, b Harvey	27
T. McEwan, not out	20
M. Kettle, b Nichols	1
N. Gibbons, run out	1
Extras	9
	167

Bowling

A. Garrod	12-5-13-1
J. C. McKenzie	4-2-14-0
A. Whitworth	11-6-19-3
J. B. Nichols	18-1-62-4
J. Harvey	13-1-36-1
R. J. Mitchell	3-0- 9-0

Bart's

J. E. Stark, c Fosh, b McEwan	35
W. H. Pagan, b Kettle	6
J. D. Abell, st Hawke, b Gibbons	11
A. Whitworth, run out	32
J. B. Nichols, not out	65
J. Harvey, not out	10
J. R. Nicholson, R. J. Mitchell, E. J. Batterham, J. C. McKenzie, A. Garrod, did not bat.	
Extras	9
	168

Bowling

M. Kettle	15-4-33-1
T. McEwan	18-8-40-1
A. J. Simmonds	15-2-47-0
N. Gibbons	9-2-27-1
R. Gaertner	2-0- 8-0
A. C. Fernando	2-0- 5-0

1st XI v U.C.H.

Played at Chislehurst on May 4th. Match drawn. Bart's won the toss and batted first in ideal conditions, but got off to a somewhat slow start. However, Whitworth was able to declare at 171 for 6 wickets, leaving U.C.H. 2¼ hours to get the runs. The Bart's innings was dominated by a splendid aggressive knock by Whitworth, who with Mitchell was able to put on 88 runs for the fifth wicket. Harvey and Garrod opened the Bart's attack, and met with early successes. U.C.H. soon fell behind the clock and the match ended in a draw.

Barts.

W. Pagan, c Barnett, b Lewis	25
E. J. Batterham, c and b Lewis	8
D. Abell, b Ridley	17
J. Harvey, c Barnett, b Lewis	13
A. Whitworth, c Ridley, b Toms	69
J. Tabert, b Ridley	2
R. J. Mitchell, not out	29
M. Orr, J. C. McKenzie, A. Anderson, A. Garrod, did not bat.	
Extras	8
	171

Bowling

A. C. W. Lewis	23-3-55-3
M. Ridley	14-2-47-2
J. Cummins	12-1-49-0
J. Ayling	4-0-12-0

U.C.H.

145—7
(M. Barnett 72, K. Harrison 30)

Bowling

A. Garrod	10-1-24-1
J. Harvey	13-2-33-2
J. C. McKenzie	14-4-28-2
R. J. Mitchell	10-0-41-2

1st XI v Putney Eccentrics

Played at Chislehurst on May 5th, 1957, and won by Putney by 109 runs.

Although Bart's got off to a good start by taking the first three Putney wickets for 18 runs, lapses of fielding combined with aggressive middle-order batting by Putney enabled the mto score 276 all

out. Bart's were left three hours to make the runs and in spite of a brisk start and a stubborn defensive 59 by Abell, were all out half an hour before time. The middle order batsmen were out trying to force the pace, while the tail was not strong enough to last out time. A rather disappointing but not discreditable result.

Putney
276
(Chappell 75, Emmett 113, Bartlett 56)

Bowling

A. Garrod	5-0-24-2
J. Harvey	17-1-65-1
A. Whitworth	9-1-50-3
J. Nichols	11-2-58-1
R. Mitchell	13-3-52-2
R. Pilkington	2-0-16-0

Bart's

W. Pagan, c sub b Chappell	29
R. J. Mitchell, c Merredew, b Chappell	17
D. Abell, c Pook, b Armstrong	59
J. B. Nichols, c Ambler, b Chappell	0
A. Whitworth, b Redford	2
H. B. Ross, b Pook	13
J. Harvey, c Ambler, b Armstrong	11
R. Pilkington, c Ambler, b Chappell	16
J. Tabert, b Armstrong	8
M. Orr, not out	0
A. Garrod, b Chappell	0
Extras	12
	167

Bowling

Redford	12-1-41-1
Chappell	13-4-41-5
Pook	6-1-19-1
Armstrong	10-2-38-3
Merredew	3-0-16-0

1st XI v Radcliffe Infirmary

Played at Oxford on May 26th, and won by 72 runs.

This game provided a delightful and informal contrast to the previous day's disaster. Bart's batted first on a more than lively wicket, and with some rustic strokes from the middle order batsmen scored 146 quick runs. The Radcliffe never recovered from a disastrous start, losing three wickets for one run, and were all out half an hour before time for 74.

Bart's

J. E. Stark, c Porter, b Denborough	9
W. H. Pagan, c Pashmore, b Currey	9
J. D. Abell, lbw, b Denborough	0
E. J. Batterham, b Currey	0
J. A. Harvey, c Burgess, b Currey	20
R. J. Mitchell, st Barham, b Scott	20
B. Richards, run out	22
R. B. Harcourt, run out	24
J. Tabert, b Scott	0
A. Garrod, run out	11
J. Martin, not out	12
Extras	19
	146

Radcliffe Infirmary
74

SHOOTING

Two teams of four were entered for the Inter-hospitals competition for the Armitage Cup at Bisley on Saturday, May 18th. Despite the effects of the View-day ball the previous evening the results were encouraging.

The 'A' Team won the trophy by a clear margin from Guy's 'A' who were placed second. Of the 'B' teams competing, Bart's 'B' tied with Guy's 'B' but were conceded first place on a ' count-out '.

The two highest individual scores at the meeting were returned by Bart's men who carried off all but one of the trophies for which they competed.

The match was fired over 300x and 600x in bright showery weather with a variable cross-wind which at times proved tricky. Apart from one brief shower at 600x, however, conditions were as good as could be expected. The 'A' team came back to 600x with a healthy lead and this was increased slightly but comfortably at the longer range.

Scores were as follows:—

'A' Team

	300x	600x	Aggte.
G. R. Hobday (Capt.)	34	33	67
R. P. Ellis	34	31	65
R. W. Gabriel	31	30	61
G. F. Abercrombie ...	32	29	61
Total	131	123	254

(Max. possible score=280.
Guy's 'A' 247, St. Thomas's 243)

'B' Team

	300x	600x	Aggte.
R. Miller	28	30	58
R. B. Church ...	28	30	58
J. R. Parker	29	29	58
T. S. Matthews ...	31	25	56
Total	116	114	230

Tankard for highest individual aggregate at 300x and 600x:—
G. R. Hobday ... 67/70
Tankard for highest individual score at 300x:—
R. P. Ellis 34/35
(Awarded on 'count-out' ending 45555)

This result is gratifying and is indicative of the improved standard of the club's shooting in the past six months.

In the Hospitals Smallbore Winter League the club was placed fourth, which, although encouraging, might have been higher but for a rather shaky start to the series. It is hoped that next winter will return the cup to the Hospital. Teams for the league matches were drawn from some 10 members of the club and of these G. R. Hobday, J. D. Hobday and G. F. Abercrombie were invited to fire on behalf of the United Hospitals.

Within the club a monthly spoon and medal are awarded to the winner and 'runner-up' in a handicap competition, where the handicap is adjusted to favour the general improvement in an individual's shooting relative to his previous month's showing. Such competitions provide a stimulus to the newer and less experienced members of the club and are made possible by the kindness of Dr. G. E. Francis in his gift of the prizes. Results for the first part of the year are as follows:—

Monthly Spoon Competitions

	Spoon	Bronze Medal
January	No competition	
February	R. W. Gabriel	G. B. Jackson
March	R. P. Ellis	M. M. Orr
April	Miss A. M. Holloway	R. P. Ellis

Spoon and Medal for a shoot over 200x, 500x and 600x at the club meeting at Bisley on May 5th:

	200x	500x	600x	Aggte.
1. R. P. Ellis	32	32	28	92
2. R. W. Gabriel	32	29	30	91

Amongst the clinical intake there have been several experienced shots—some who have fired for Oxford and Cambridge. They have been able to provide some much-needed coaching both on the miniature range and at Bisley. Of the comparative newcomers to shooting considerable promise has been shown on the miniature range by R. G. Gabriel, D. E. Barrington and G. B. Jackson and at Bisley by R. W. Gabriel, R. Miller and J. B. R. Parker.

With the summer season now in full swing, it is hoped that the club will continue to retain its position in Inter-hospital shooting, and that it will repeat the success of the Armitage Cup meeting at the National Rifle Association's Inter-hospitals Competition, during the Imperial Meeting at Bisley in July.

ROWING

United Hospitals Bumping Races

These races, instituted for the first time in 1955, were rowed this year on the 8th—10th of May. The Boat Club was well supported and was able this year to enter four eights which rowed every night, and a fifth provided by the residents which was to row on the second and third nights. Unfortunately, an alteration in the time of the racing on the second night prevented them actually taking part, although they did get half-way to the start, but on the last night they rowed well and were unlucky not to catch Middlesex II.

The 1st VIII went down to Guy's on the first night largely because of a bad start and an unfortunate lack of bumping-race experience on the part of most members of the crew. The second night however showed an improvement and in the final evening's racing they rowed very much better and recovered some of the form that they had shown before the races.

The 2nd VIII rowed over every night and the 3rd VIII bumped St. Thomas's III the first night, rowed over the second and were unfortunately caught by St. Mary's I on the final evening.

The rest of the results and the lists of members of the crews are given below.

The Club would like to extend its grateful thanks to all those who were kind enough to assist with time-keeping and pushing out the boats. Without them it would have been impossible to race and one hopes that as many such supporters will turn out next year as they did this year.

Crews

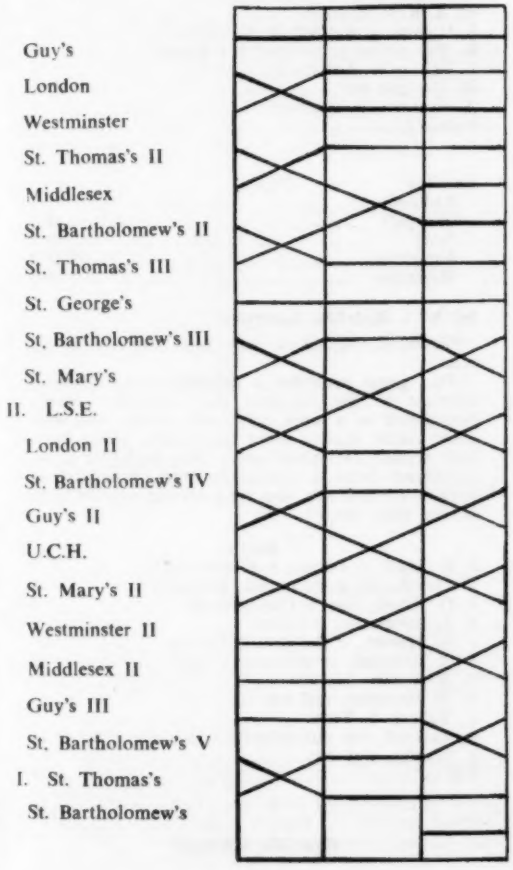
1st VIII — G. Diamond, E. J. B. Makin, J. R. Strong, S. Khedleri, E. M. C. Ernst, R. France, F. A. Strang, K. R. Bowles, Cox — J. C. Rice.

2nd VIII — Fell, Howes, Bootes, Dixon, Wilson, Thomson, Weaver, Edmondson, Cox — Manchester.

3rd VIII — King, Padfield, Bartlett, Marshall, Dale, Hood/Davies, Therkildsen, Ellison, Cox — Wilson, J. J.

4th VIII — Geach, Hall-Smith, White, Smythe, Hadley, McNeill, Wilson, R. G., Lines, Cox — Wilson, J. J.

5th VIII —J. B. Dawson, C. J. W. Hunter, K. E. A. Norbury, B. Scheer, B. T. Thom, A. D. Ferguson, C. N. Hudson, D. A. Chamberlain, Cox — M. Cooksey.



EXAMINATION RESULTS

UNIVERSITY OF OXFORD

2nd B.M. Examination, Hilary Term 1957

Pharmacology and Principles of Therapeutics: Smith, R. G. L.
Special and Clinical Pathology: Creightmore, J. Q.

UNIVERSITY OF LONDON

Special 2nd Examination for Medical Degrees, March 1957

Abell, J. D.	Donaldson, W.	Horder, P. T.	Pope, J. A. ff.
Alder, D. E.	Fasan, P. O.	Humphreys, D. M.	Price, R. N. W.
Almeyda, J. J. R.	Garrod, J. A.	James, S. E.	Russell, Z. A.
Andan, A.	Gletsu, A.	Julier, D. L.	Smith, P.
Arnold, J.	Goodchild, M. C.	Kennedy, R. C.	Tabert, J. E. K.
Barraclough, G. P. M.	Gray, W. R.	Kilroy, A. W.	Tufft, I. J.
Birt, R. C.	Hadley, R. M.	Makin, E. J. B.	Vollum, D. I.
Booth, D.	Halls, G. J.	Matthews, A. W.	Walker, K. A.
Cassell, P. G.	Hare, B. W. E.	Musgrove, J. S.	Weaver, P. C.
Constable, M. D.	Hartley J. A.	Pettavel, J. A. P.	
Craggs, J. C.	Hinds-Howell, J. M.	Ponnapalam, M. S.	

Final M.B., B.S. Examination, April 1957

Bickham, E. E. M.	Graham-Evans, J. N.	Newton, S. E.	Read, J. M.
Burles, P. G.	Harrold, B. P.	Nicholson, J. R.	Snart, A. G.
Cochrane, T. D.	Hennessy, D. B. E.	Parsons, D. F.	Thomas, A. A.
Coltart, N. E. C.	Lammiman, D. A.	Peacey, J. M.	Thomas, S.
Costley, S. R.	Lemon, J. H.	Pool, K. S. J.	Tressider, A. M.
Garnham, J. C.	Lloyd, A. V. C.	Pringle, L.	Wilson, J. A.

Supplementary Pass List

Part I			
Alade, R. B.	Coakley, M. C.	Major, V. T. D. H.	Tallack, J. S. T.
Badley, B. W. D.	Ellison, J. A.	Pidcock, B. M. H.	Visick, R. H.
Billardis, D. G.	Hackett, M. E. J.	Richings, J. O. H.	Vyle, E. A.
Chinery, A. R. O.	Hall, F. G.	Rowswell, E. F. D.	Woolf, A. J. N.
	Hinton, J.		
Part II			
Ellison, J. A.	Taggart, P. I.	Laurent, J. M.	Plumptre, A. M. M.
Part III			
Watts, N. M.			
Part IV			
Ellison,	Plumptre, A. M. M.	Watts, N. M.	Williams, J. C. L.
Grasset-Molloy, G. J. M.	Ware, J. M.		

CONJOINT BOARD

Final Examination, April 1957

PATHOLOGY

Alade, R. B.	Hackett, M. E. J.	Vyle, E. A.	Woolf, A. J. N.
Dunkerley, D. R.			

MEDICINE

Burles, P. G.	Garnham, J. C.	Mather, B. S.	Yip, S. Y.
Cochrane, T. D.	Graham-Evans, J. N.		

SURGERY

Batterham, E. J.	Dunkerley, D. R.	Garnham, J. C.	Graham-Evans, J. N.
Burles, P. G.			

MIDWIFERY

Abraham, P.	Garnham, J. C.	Yip, S. Y.

The following have completed the examination for the Diplomas of M.R.C.S., L.R.C.P.:—

Abraham, P.	Cocrhane, T. D.	Garnham, J. C.	Graham-Evans, J.N.
Burles, P. G.			

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* *Reprint received and herewith gratefully acknowledged. Please address this material to the Librarian.*

BOOK REVIEWS

THE PRINCIPLES AND PRACTICE OF DIATHERMY *by* Brian O. Scott, M.R.C.S., L.R.C.P., D.Phys.Med.

This book gives a very clear, detailed and reasoned description of Diathermy currents, especially those more commonly referred to as 'Short-Wave' diathermy.

Starting with an excellent explanation of the physical principles involved, and going on to describe the apparatus and finally the physiological effects and methods of applying treatment, a complete picture is given of the variety and scope of these treatments.

It would appear that the author habitually uses a machine of low output, as he repeatedly advises the use of narrow spacing between skin and electrode despite the marked surface heating that such a technique produces, on the argument that although wider spacing produces more even heating of the body tissues, the radiation losses are such as to make the total treatment ineffective. Most good machines, contrary to this theory, have sufficient output to compensate for this.

Apart from this minor criticism the book is far in advance of anything yet published on this subject. It is a most readable and interesting exposition of the whole subject and should be of great use to all students of Physical Medicine or Physiotherapy.

The text is well set out and the diagrams are clear and attractive, divided into short paragraphs with essential points well stressed.

T.W.

A GENERAL HISTORY OF NURSING by L. R. Seymer. Faber & Faber.

The number of nursing books of original scholarship, written in a style that can be justly described as literary, has never been a large one in this or any other country. Mrs. Seymer's name, however, comes readily to mind when nursing authors of academic distinction are sought. Those who heard her give the Florence Nightingale oration at the International Congress of Nurses in Atlantic City ten years ago will not soon forget it.

Her book has been a classic in its field since its publication in 1932, and that a new edition should be needed only three years after the last is an indication of its popularity. It is full of information and easy to read in spite of the formidable nature of the terrain, full of dates and names, that has to be covered. There is a fine bibliography and a good index.

A point that occurs to readers of the history of nursing is how short that history is. Its beginnings in the Pre-Christian era and the first millenium were quite unlike what we mean by nursing today. Washing the feet of lepers has an emotional not a hygienic purpose. Only fifty pages is needed to cover these early centuries. After the Reformation the pace of change begins to quicken, and today the profession is moving rapidly in all countries, even if we are not all agreed as to the direction it should take or the ends at which it should aim.

W. E. Hector.

A MANUAL OF HUMAN ANATOMY, Vol. III, Abdomen and Pelvis, *by* Aitken, J. T., Causey, G., Joseph, J., and Young, J. Z.; Vol. V, Central Nervous System, *by* Aitken, J. T., Sholl, D. A., and Young, J. Z. E. & S. Livingstone, Ltd., London, 1957.

These two books complete a series of five new dissecting manuals. In both volumes the general pattern of presentation is similar to that in the earlier members of the series, and, as the authors state in their preface, much detail has been omitted. The results have been good in the case of Volume V but, unfortunately, in Volume III as in Volumes I and IV, the effort to condense and simplify has led to a certain laxity of expression.

In Volume III the spleen, for example, is described as "a very vascular organ consisting of lymphoid tissue", and the tributaries of the superior mesenteric vein are said to "correspond with the branches of the artery". Numerous errors have been introduced. Thus, the ilio-inguinal nerve is described as giving branches to the buttock, and the posterior fibres of the internal oblique muscle are stated to be attached to the 7th, 8th and 9th ribs; the descriptions of the greater omentum and transverse mescolon are inaccurate, and the account of the anal sphincters is poor and misleading. The diagrams are, for the most part, clear and informative, but in one figure the lumbosacral trunk is shown lying along the pelvic brim parallel with the psoas major, and some other figures exhibit minor defects. Instructions for dissection often lose in clarity from over-abbreviation.

Volume V, on the other hand, is the most satisfactory book of the series. Dissection of the spinal cord and brain stem is well correlated with the study of sections, and the instructions for dissection are concise and unambiguous. The book has been written to meet a particular set of circumstances, being based on the course in neurological anatomy at University College. It is, no doubt, ideal for the students of that College but other institutions will not always find it convenient to arrange their courses in precisely the way recommended. This will, in many cases, prove the most important limitation of an otherwise good text-book of practical anatomy.

HALE-WHITE'S MATERIA MEDICA; PHARMACOLOGY & THERAPEUTICS. 30th edition *by* A. H. Douthwaite. J. & A. Churchill Ltd. 24/–.

'Hale-White' first appeared in 1892 but it is kept up to date by frequent revisions, this being the eleventh to appear since 1931 when Dr. Douthwaite undertook the task. In it drugs in use today are noted, preparations and doses recorded, while for each drug there is an adequate description of its actions and a section on its use in therapeutics. All that is of value in the 1300 pages of the Extra Pharmacopoeia is condensed into 500 pages. This 'bible'—which was not designed to be read from cover to cover—is one into which one dips, for

here concisely and cheaply, is the basic information required by qualified and unqualified medical students who wish to learn and refresh.

In its very strength of conciseness must inevitably lie its risk of weakness, for there must be ruthlessness in discarding outworn ideas and in incorporating new facts. Your reviewer's task is difficult therefore when he comes to consider matters of detail for he cannot know if there was purpose in, or sin of, omission. Morphia is rightly said to be contraindicated in conditions of respiratory weakness, but would not the addition of the word 'emphysema' lend point, for many such patients have been too early sent from this world by treatment with morphia? If the answer to this be as the plaintive statement of the examination candidate, 'No time for more' then is it necessary still to state that the use of sodium sulphate in bacillary dysentery 'always of doubtful value, has been superseded — ' and is sodium sulphate intravenously still given in cases of suppression of urine?

Your reviewer also takes exception to the sections devoted to calciferol and to heparin. Why are seven lines spent in giving information about events following heparin dosage of from ½ to 1mg. per kilo when it becomes evident that the usual dose is from 2 to 3 mg. per kilo? Are its actions confined to the delaying of clotting? Are the only conditions for which it is used that warrant heavy type, blood transfusion, prevention of post-operative thrombosis and thrombophlebitis migrans? Does its use in coronary thrombosis only aim at the prevention of clot extension or the formation of intra-cardiac thrombus?

THE CYTOLOGY OF EFFUSIONS IN THE PLEURAL, PERICARDIAL AND PERITONEAL CAVITIES. A. I. Spriggs, D.M., M.R.C.P., Heinemann, London, 1957, pp. 67. Price 42/–.

This is a well produced and interesting monograph intended to help in the identification of cells found in pleural, pericardial and peritoneal fluids. The cytology of the serous fluids is often of much diagnostic and prognostic importance especially when malignant disease is suspected, but frequently unsatisfactory techniques prevent the examination being as helpful as it should be. The author employs and gives directions for the preparation of good quality Romanowsky-stained films. These are considered to be the best for cell identification. The cells met with in the various types of effusion are well described and the illustrations, many of which are in colour, are a feature of the book. Haemorrhagic pleurisy is stated to be very seldom tuberculous and a high percentage of lymphocytes and absence of mesothelial ('endothelial') cells are not specific for this type of infection but can also occur in post-pneumonic patients. 'L.E. cells' may be demonstrated in the serous fluids derived from cases of disseminated lupus erythematosus, a condition in which effusions are common. The significance of pleural and peritoneal eosinophilia is discussed and also the cytology in effusions occurring in leukaemia and the reticuloses. In malignant effusions it is only when there is metastatic involvement of the serous

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Bacteria have no mothers. They merely split into two, and it would puzzle even a Freudian to discern a mother-child relationship between the halves. This method of reproduction, besides sparing them many complexes, enables them to eat whatever they like. Nature, however, is a universal mother, and one of the old school; she sees to it that they eat the right things, or else.

I need hardly remind you that the bacteria which cause disease are very fond of battening on the likes of you and me. And what is it, you may well ask, that they find so delicious?

Well, one of the things, which it seems we keep always on the menu, is known to biochemists by the insufferable name of . . .

If only we had space for the rest of this instructive medical essay, which appeared originally in The Times, *you could read it here. What we have got, however, is a collection of these diverting articles from the same celebrated pen. Would you like a copy of "The Prosings of Podalirius"? Just drop us a card at the address below.*

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membrane, that the characteristic cells are likely to be found. Criteria of malignant cells are defined and a description given of the various types met with. As regards reliability of cytological diagnosis, in the author's series of 103 consecutive cases of malignant pleural or peritoneal effusions 71 per cent. had positive findings and 29 per cent. were 'false negatives.' It is well recognised that some primary sites are likely to give a much higher proportion of positive results than others, e.g. ovarian carcinoma, 92 per cent. In carcinoma of the lung, unfortunately, the results are relatively poor.

The book contains a comprehensive bibliography and an adequate index. It is one of the best monographs dealing with this specialised field of cytology and should be of much value to the clinical pathologist. The only adverse criticism is the high price, due ostensibly to the quality of the microphotographs and coloured plates.

H. F. BREWER.

BOOKS RECEIVED

OUTLINE OF FRACTURES *by* J. C. Adams, E. & S. Livingstone Ltd., pp. 248. Price 27/6.

PATHOLOGICAL HISTORY *by* R. F. Ogilvie, E. & S. Livingstone Ltd., pp. 482. Price 52/6.

A TEXTBOOK OF SURGICAL PATHOLOGY *by* C. F. Illingworth & B. M. Dick. Churchill. Price 63/–.

CLEFT LIP & PALATE *by* W. G. Holdsworth, 2nd Edition. William Heinemann, pp 187. Price 42/–.

TEXTBOOK OF MEDICINE edited by Sir John Conybeare & W. N. Mann. E. & S. Livingstone, pp. 861. Price 42/–.

SURGERY OF THE ANUS ANAL CANAL AND RECTUM *by* E. S. R. Hughes. E. & S. Livingstone, pp. 304. Price 50/–.

A MANUAL OF HUMAN ANATOMY *by* Aitken et al. Vols. III & V, pp. 130. Price 12/6. E. & S. Livingstone Ltd.

RECENT ADVANCES IN ANAESTHESIA AND ANALGESIA *by* Langton Hewer & J. Alfred Lee. J. & A. Churchill, pp. 295. Price 40/–.

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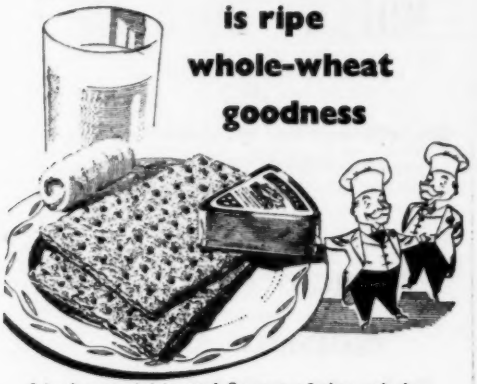

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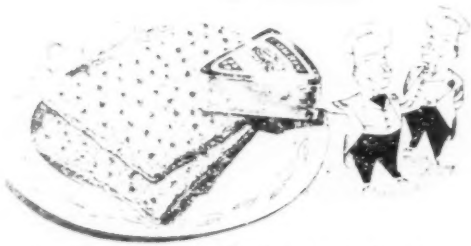

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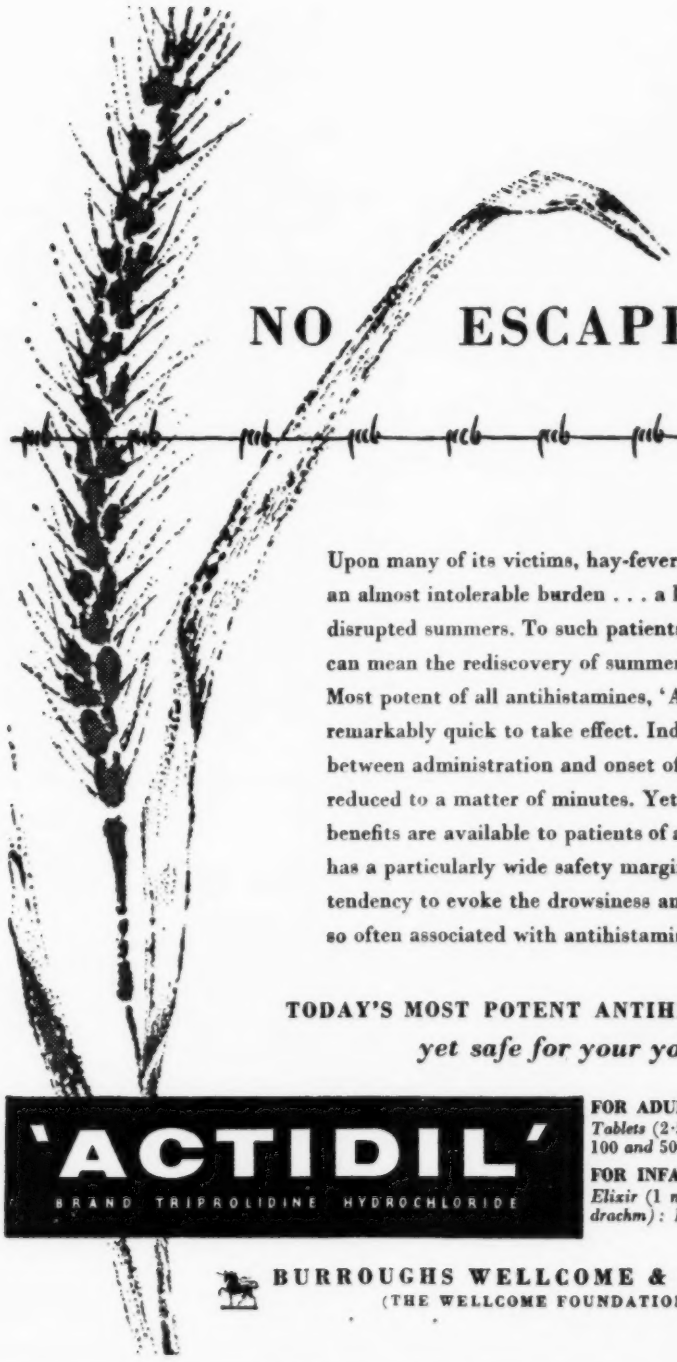

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